



DEPARTMENT OF THE NAVY  
NAVAL COMMAND, CONTROL AND OCEAN SURVEILLANCE CENTER  
IN-SERVICE ENGINEERING, EAST COAST DIVISION (NISE EAST)  
P.O. BOX 190022  
NORTH CHARLESTON, SC 29419-9022

IN REPLY REFER TO:

11 SEP 96

**CERTIFIED MAIL -- RETURN RECEIPT REQUESTED**

Booz, Allen & Hamilton, Inc.  
8283 Greensboro Drive  
McLean, VA 22102-3838

Subject: CONTRACT N00612-91-D-8001

**Representatives:**

As a result of an investigation conducted by the U.S. Naval Criminal Investigative Service (NCIS), Charleston, South Carolina, several issues have been noted which require your review and consideration. It is requested that your firm review the listed issues and provide the Contracting Officer a response to the facts as presented below.

The first issue concerns the apparent mischarging of costs under subject contract. Upon the request of the NCIS Charleston Supervisory Special Agent, the Defense Contract Audit Agency (DCAA), Rosslyn Branch Office, performed an audit of your firm's accounting records, time sheets, time input adjustment sheets, and other pertinent documentation to ascertain whether any accounting irregularities existed under subject contract. The final audit, which covered the period 1 April 1992 through 31 March 1995, is forwarded to you as enclosure (1). As reflected in enclosure (1), the audit revealed numerous accounting irregularities totaling \$46,155.23. It should be noted that this total does not include allocable indirect expenses. You are hereby requested to review enclosure (1) and advise the Contracting Officer of your offer of recoupment. The basis of your offer should include all allocable direct and indirect expenses.

The second issue concerns the use of unqualified personnel under subject contract. Considering the information submitted by your firm during the NCIS investigation, it appears that there has been a significant amount of turnover of personnel from those originally submitted for evaluation under the solicitation, both in terms of substitution of personnel and reassignment to alternate labor categories. This substitution of personnel has occurred without the prior consent of the Contracting Officer as required by contract clauses C8A entitled "Key Personnel Qualification Requirements" and H16 entitled "Key Personnel Requirements." The submitted information has been reviewed and it has been determined that this use of unapproved personnel has resulted in a degradation of the level of professional services rendered during contract performance. Therefore, you are requested to advise the Contracting Officer of your offer of consideration to compensate the Government for the devalued services received.

In addition to the above, you are requested to provide to the Contracting Officer a detailed summary of corrective actions taken or proposed to be taken in order to avoid recurrence of similar incidents.

The Government desires to resolve the above issues by mutual agreement at the level of the Contracting Officer. If agreement cannot be reached between your firm and the Contracting Officer, further action may be required. You are hereby afforded the opportunity to present, in writing, any facts bearing on the above issues to the Contracting Officer. Your failure to present any evidence or reasonable rationale within the time period required will be considered as an admission that none exists and will thereby result in further action by the Contracting Officer.

The requested information is required no later than 4 October 1996 and should be forwarded to the following address: Contracting Officer, NISE East, Code 1113DM, 4600 Goer Road, North Charleston, SC 29406. Inquiries concerning this letter may be directed to Ms. Donna Murphy, Code 1113DM, at telephone number (803) 743-6486.

Sincerely,



JOLIENE L. BOWERS  
Contracting Officer

Encl:

- (1) Defense Contract Audit Agency Final Audit Report  
dated 24 April 1996

Copy to:

- (1) NCIS Charleston
- (2) Booz, Allen & Hamilton, Inc.,  
Attn: Mr. Bart Daniels



# DEFENSE CONTRACT AUDIT AGENCY



## AUDIT REPORT

24 April 1996

**Prepared For:**

Supervisory Special Agent  
Department of the Navy  
Naval Criminal Investigative Service  
Charleston Naval Base  
Charleston, South Carolina 29408-1941

**Prepared By:**

DEFENSE CONTRACT AUDIT AGENCY  
ROSSLYN BRANCH OFFICE  
6800 Versar Center, Suite 329  
Springfield, Virginia 22151-4147  
Telephone No. 703-325-9542  
FAX No. 703-325-0411

**Subject:**

Investigative Audit Support for Case No. 05CS-0153-  
4GNA, 05 May 1994

**References:**

PCO: None  
ACO: None  
DCAA: Audit Report No. 6331-96H48600001

**Contractor:**

Booz Allen & Hamilton, Inc.  
8283 Greensboro Drive  
McLean, Virginia 22102-3838709

**Report Release Restrictions:**

See Page 7

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## SUBJECT OF AUDIT

As requested in your 12 April 1995 letter, we have audited Booz-Allen & Hamilton, Inc.'s (BAH's) accounting records, time sheets, time input adjustment (TIA) sheets and other pertinent documentation to determine if there was evidence of accounting irregularities on Contract No. N00612-91-D-8001. Our audit covered the period 1 April 1992 through 31 March 1995 (CFY's 1993, 1994 and 1995).

## EXECUTIVE SUMMARY

Our audit disclosed evidence of accounting irregularities pertaining to labor costs incurred.

## SCOPE OF AUDIT

We conducted our audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the data and records reviewed are free of material misstatement. An audit includes:

- reviewing the contractor's internal controls, assessing control risk and determining the extent of audit testing needed based on an assessment of control risk;
- examining on a test basis, evidence supporting the amounts and disclosures in the data and records reviewed;
- assessing the accounting principles used and significant estimates made by the contractor; and,
- evaluating the overall data and records presentation.

To satisfy your specific request, we limited our audit to the accounting records pertaining to Contract No. N00612-91-D-8001. We evaluated employee time sheets, time input adjustment (TIA) sheets, and ODC vouchers for the following:

1. The switching of labor between contract delivery orders via TIA's.
2. Timeliness of the adjusting entries made via TIA's.
3. Contract funding versus costs incurred to date at the time of the labor adjustment (TIA).
4. Consistent allocation to delivery orders of individual employee travel vouchers and their labor incurred for the same date.

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**Audit Report No. 6331-96H48600001**

We believe that our audit provides a reasonable basis for our opinion.

BAH's accounting, billing, and time recording systems are considered adequate for the accumulation, reporting and billing of costs on government contracts, as described in the Contractor's Organization and Systems section of this report (page 3). As a result, we assess the control risk as low. Our audit provides a reasonable basis for our opinion.

**RESULTS OF AUDIT**

**AUDITOR'S OPINION:**

In our opinion, the \$46,155.23 (which does not include allocable indirect expenses) of transactions listed in Exhibit A (attached to this report), are consistent with accounting irregularities, and are not similar in nature to routine adjusting entries. The transactions listed have one or more of the following basic characteristics:

1. The changing of labor costs (via TIA) from one delivery order to another delivery order or contract.
2. The TIA occurred during a period where the original delivery order was overrun, according to BAH's Project Cost Reports.
3. The TIA usually originated after a reasonable period of time had expired from the date on which the labor was incurred.
4. In some instances, the change in the allocation of labor costs was not supported by the employee's travel voucher for the same period.

Our results of audit were sent in advance, to NCIS (b)(6), (b)(7)(C) NCIS, Special Agent, via letter on 14 March 1996.

Since there are significant issues raised by our audit conclusions, we recommend that you consult with a DCAA representative regarding any questions you may have. Assistance may be requested through Mr. James Carrera, Supervisory Auditor, at (703) 902-5628, or FAX - (703) 902-3013, or Ms. Yvonne Boruch, (703) 902-5480.

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## CONTRACTOR'S ORGANIZATION AND SYSTEMS

### I. CONTRACTOR'S ORGANIZATION

Booz-Allen & Hamilton, Inc. (BAH) is an international management and technology consulting firm committed to helping senior management solve complex problems. BAH is a private corporation founded in 1914, and is wholly owned by its 194 officers. BAH has its corporate headquarters in McLean, Virginia. BAH currently has two business units, Worldwide Commercial Business and Worldwide Technical Business (WTB), formerly the Technology Center. WTB has approximately 3,800 active employees. This audit concerns only the WTB business unit.

The WTB provides technology, engineering, and management services, including mission and strategy development, systems engineering, and program design and development. These services are provided to clients in the defense, communications, environmental, energy, and management sciences businesses.

The total WTB sales for the fiscal years ending 31 March 1993, 1994 and 1995 are shown as follows:

	Actual 1993 <u>(\$000)</u>	Actual 1994 <u>(\$000)</u>	Actual 1995 <u>(\$000)</u>
Annual Sales	\$ 363,394	\$ 414,183	\$ 467,379
<u>Annual Costs By Contract Type</u>			
Government - CPFF	\$ 244,661	\$ 278,471	\$ 289,094
Government - T&M	36,447	53,454	75,140
Government - FFP	24,219	25,281	36,360
Commercial	43,782	41,504	54,729
Total	\$ 349,109	\$ 398,710	\$ 455,323
Gov't Participation	87%	90%	88%

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## II. CONTRACTOR'S COST ACCOUNTING SYSTEM

a. The contractor's accounting system has been determined to be adequate to accumulate costs on government cost-type contracts. In January 1994, BAH implemented a new Job Cost Accounting and Management Information System (JAMIS). Our assessment of the accounting control risk is low as of 14 August 1995. No significant deficiencies exist.

b. The cognizant ACO determined that the contractor's estimating system was adequate on 7 May 1993. The Internal Control Audit (ICAP) assessment for the estimating system is adequate based on our Audit Report No. 6331-95H24010001, dated 7 February 1996. BAH is awaiting the ACO's determination of adequacy.

c. The cognizant ACO determined that the BAH CAS Disclosure Statement, dated 1 April 1995, was current, accurate and complete on 16 June 1995.

d. The contractor has an approved purchasing system as determined by the ACO on 3 January 1995.

e. The contractor does not have any open CAS noncompliances.

The contractor maintains a job order cost accounting system which provides for the accumulation of costs by separate elements for each contract, job, or task order. The contractor proposes four indirect cost pools for each cost center: Fringe Benefits, Overhead, Material Handling, and General and Administrative (G&A).

The major elements of each pools are:

Fringe Benefits -

Health and Life Insurance, Social Security and Other Payroll Related Taxes, Pension Cost and Vacation, Holiday and Other Leave Expenses.

Overhead -

Indirect Labor and Fringe Applied, Occupancy, Bonuses, Employee Welfare, Management Center Allocation and Other Administrative-type Expenses.

Material Handling -

Indirect Labor and Fringe Applied, Occupancy, Employee Welfare, and other Administrative-type

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General and Administrative  
(G&A) -

Expenses.

Bid and Proposal (B&P), and Independent Research and Development (IR&D) Labor Expenses, Corporate Residual Allocation, Idle Capacity, System Resource Center Expenses, and other Financial and Management-type Expenses.

The allocation bases for the pools are:

Fringe Benefits -

Labor Dollars

Overhead -

Direct Labor Dollars, Bid and Proposal (B&P) and Independent Research and Development (IR&D) Labor Dollars, Capitalized Project Labor Dollars and Fringe Applied.

Material Handling -

Systems Engineering & Integration (SE&I) hardware and software, other equipment and related software purchases for the government/client, Subcontracts, Subsidiary Subcontracts, Intercompany Transfers and Independent Consultants.

General and Administrative  
(G&A) -

Value-Added Base which is defined as Total Cost Input less the Material Handling base and the G&A pool.

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Audit Report No. 6331-96H48600001

DCAA PERSONNEL

Primary contact regarding this audit:

Yvonne C. Boruch, Senior Auditor

Telephone No.

(703) 902-5480

Other individuals having involvement with the audit and having access to proprietary or source selection information regarding this audit report:

Charles J. Hay II, Branch Manager  
James Carrera, Supervisory Auditor

(703) 325-9528

(703) 902-5628

Class of persons having access to this report:

Office Administrative Personnel

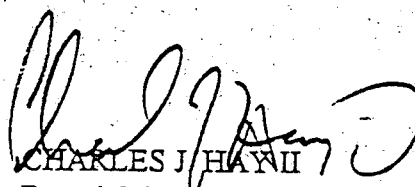
DCAA Office FAX No.

(703) 902-3013

RELEVANT DATES

NCIS request for audit support, dated 12 April 1995.  
DCAA Letter of Engagement, dated 21 April 1995.

AUDIT REPORT AUTHORIZATION BY:

  
CHARLES J. HAY II  
Branch Manager  
DCAA Rosslyn Branch Office

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AUDIT REPORT DISTRIBUTION AND RESTRICTIONS

DISTRIBUTION

DCAA Justice Liaison Auditor  
U.S. Dept. of Justice  
Defense Procurement Fraud Unit  
Bond Bldg., Room 3100A  
P.O. Box 28188 Central Station  
Washington, D.C. 20038

Defense Contract Audit Agency  
Mid-Atlantic Region  
ATTN: RSI-6  
One Independence Mall, Suite 1000  
615 Chestnut Street  
Philadelphia, PA 19106

RESTRICTIONS

1. BAH information contained in this audit report may be proprietary. It is not practical to identify during the conduct of the audit those elements of the data which are proprietary (too few audit reports are requested by parties outside the contracting activity to warrant the additional effort). Proprietary determinations should be made in the event of an external request for access. The restrictions of 18 U.S.C. 1905 should be considered before this information is released to the public.
2. Under the provisions of Title 32, Code of Federal Regulations, Part 290.26(b)(2), any Freedom of Information Act requests for audit reports received by DCAA will be referred to the cognizant contracting agency for determination as to releasability and a direct response to the requester.
3. The Defense Contract Audit Agency has no objection to release of this report, at the discretion of the contracting agency, to authorized representatives of BAH.
4. The information contained in this audit report should not be used for purposes other than

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Booz-Allen & Hamilton, Inc.  
McLean, VA  
Contract No. N00612-91-D-8001  
Results of Audit

<u>Employee Name</u>	<u>Emp #</u>	<u>Labor Changes</u> <u>09005-949-xxx</u>		<u># Hrs</u> (a)	<u>Cost Rate</u> (b)	<u>Per Audit Amount of Adjustment</u> (a) * (b)	<u>Original Date of TIA</u>	<u>Changed Date of TIA</u>	<u>Exact Dates Being Adj.</u>	<u>Task was overrun at time of adjustment.</u> (1)	<u>Period between labor incurred and adj. was unusually long.</u> (2)	<u>There was a travel voucher which did not support the change.</u> (3)	<u>See Reference Note</u>
		<u>From Job No.</u>	<u>To Job No.</u>										
Hawley	008080	16	773	5.00	\$39.04	\$195.20	12/1/93	2/20/94	11/9-11/15/93	X	X		1
Connors	000554	10	4	6.00	\$31.61	\$189.66	6/18/93	7/18/93	11/20/92	X	X		2
Deerkoski	006781	743	745	4.00	\$57.47	\$229.88	3/30/93	4/25/93	3/5/93	X			3
Meyers	020050	742	20	16.00	\$22.51	\$360.16	9/13/93	10/13/93	8/30-8/31/93	X	X		4
Shuler	008751	738	13	7.00	\$26.68	\$186.76	4/13/93	5/13/93	3/22-3/23/93	X	X		5
Craig	004115	745	14	7.00	\$17.41	\$121.87	6/14/93	7/14/93	2/19, 2/22 -		X		6
		745	14	5.00	\$17.41	\$87.05	6/14/93	7/14/93	2/25/93		X		
Farhat	020756	737	17	5.00	\$28.74	\$143.70	6/18/93	7/18/93	3/29-3/30/93	X	X		7
Wilson	020043	745	14	81.00	\$9.52	\$771.12	5/12/93	6/12/93	4/9, 4/20-4/23, 4/26-4/30/93	X	X		8
Paese	000240	769	****	36.00	\$35.25	\$1,269.00	3/19/94	---	12/6-12/23/93	X	X		9
		769	****	16.00	\$35.25	\$564.00	3/19/94	---	12/6-12/23/93	X	X		
Fletcher	002370	763	****	48.00	\$25.85	\$1,240.80	3/19/94	---	12/1-12/3,		X	X	10
		763	****	24.00	\$25.85	\$620.40	3/19/94	---	12/6-12/14/93		X		
Hunter	005638	24	28	73.00	\$22.15	\$1,616.80	7/31/94	---	5/16-5/26/94	X	X		11
Connors	000554	19	25	36.00	\$37.02	\$1,332.69	8/30/94	---	3/16-3/29/94		X	X	12
		19	25	4.00	\$37.02	\$148.08	8/30/94	---	3/16-3/29/94		X	X	
Cothran	004021	757	785	28.00	\$20.57	\$576.00	9/28/94	---	5/17-5/27/94	X	X		13
Cothran	004021	757	770	18.00	\$19.80	\$356.40	9/21/94	---	6/1-6/15/94	X	X		14
Shuler	008751	22	18	34.00	\$26.70	\$907.77	9/12/94	---	8/9-8/12/94	X			15
Hunter	005638	763	****	80.00	\$20.64	\$1,651.20	3/19/94	---	12/1-12/15/93	X	X		16

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Booz-Allen & Hamilton, Inc.  
McLean, VA  
Contract No. N00612-91-D-8001  
Results of Audit

Employee Name	Emp #	Labor Changes 09005-949-xxx		# Hrs (a)	Cost Rate (b)	Per Audit Amount of Adjustment (a) * (b)	Original Date of TIA	Changed Date of TIA	Exact Dates Being Adj.	Task was overrun at time of adjustment. (1)	Period between labor incurred and adj. was unusually long. (2)	There was a travel voucher which did not support the change. (3)	See Reference Note
		From Job No.	To Job No.										
Shuler	008751	19	19	15.00	\$19.96	\$299.40	no date	---	4/1-4/15/94				17
		25	25	52.00	\$19.96	\$1,037.92	no date	---	4/1-4/15/94				
		22	22	60.00	\$19.96	\$1,197.60	no date	---	4/1-4/15/94				
Bullington	009713	783	27	16.00	\$18.00	\$288.00	11/18/94	---	4/1-4/15/94	X	X		18
Haynie	009723	785	791	32.50	\$14.67	\$476.78	10/27/94	---	8/24-8/29/94	X	X		19
Wilson	020043	785	791	22.00	\$10.67	\$234.74	10/17/94	---	8/16, 8/19, 8/22 8/24, 8/26, 8/28/94	X	X		20
James	020676	776	26	24.00	\$14.08	\$337.92	10/27/94	---	8/3-8/12/94	X	X		21
		776	26	16.00	\$13.62	\$217.92	10/27/94	---	8/17-8/23/94	X	X		22
Dalton	024308	19	19	22.50	\$11.62	\$261.45	no date	---	4/1-4/15/94				23
		20	20	5.00	\$11.62	\$58.10	no date	---	4/1-4/15/94				
		21	21	6.00	\$11.62	\$69.72	no date	---	4/1-4/15/94				
		777	777	6.00	\$11.62	\$69.72	no date	---	4/1-4/15/94				
		764	764	3.00	\$11.62	\$34.86	no date	---	4/1-4/15/94				
		767	767	3.00	\$11.62	\$34.86	no date	---	4/1-4/15/94				
		25	25	11.50	\$11.62	\$133.63	no date	---	4/1-4/15/94				
		18	18	10.00	\$11.62	\$116.20	no date	---	4/1-4/15/94				
		778	778	1.00	\$11.62	\$11.62	no date	---	4/1-4/15/94				
		28	28	7.00	\$11.62	\$81.34	no date	---	4/1-4/15/94				
Sullivan	021096	777	****	8.00	\$25.64	\$205.14	12/15/94	---	8/31/94	X	X		24
Orrell	020046	785	780	74.00	\$10.42	\$771.37	12/31/94	---	6/1-6/13/94	X	X		25
Bullington	009713	769	796	65.00	\$18.87	\$1,226.30	1/27/95	---	11/1-11/11/94	X	X		

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McLean, VA  
Contract No. N00612-91-D-8001  
Results of Audit

<u>Employee Name</u>	<u>Emp #</u>	<u>Labor Changes</u> <u>09005-949-xxx</u>		<u># Hrs</u> <u>(a)</u>	<u>Cost Rate</u> <u>(b)</u>	<u>Per Audit Amount of Adjustment</u> <u>(a) * (b)</u>	<u>Original Date of TIA</u>	<u>Changed Date of TIA</u>	<u>Exact Dates Being Adj.</u>	<u>Task was overrun at time of adjustment.</u> <u>(1)</u>	<u>Period between labor incurred and adj. was unusually long.</u> <u>(2)</u>	<u>There was a travel voucher which did not support the change.</u> <u>(3)</u>	<u>See Reference Note</u>
		<u>From Job No.</u>	<u>To Job No.</u>										
Orrell	020046	780	785	84.00	\$10.64	\$893.76	8/30/94	---	7/1-7/15/94	X			26
Orrell	020046	780	785	84.00	\$10.64	\$893.76	9/28/94	---	7/1-7/15/94	X	X		27
Lloyd	020025	780 / 788	789	57.00	\$12.48	\$711.53	10/31/94	---	8/1-8/15/94	X	X		28
Ego	020999	21	777	13.00	\$17.01	\$221.13	9/28/94	---	4/6, 4/7, 4/11/94	X	X		29
Jonsson	020057	765	19	36.00	\$12.38	\$445.70	4/25/94	---	2/1-2/14/94	X	X		30
Higgins	020132	755	758	46.00	\$15.44	\$710.24	9/28/94	---	11/1-11/5/93	X	X		31
Mamajek	003003	775	778	72.00	\$25.21	\$1,815.12	3/19/94	---	1/3-1/15/94	X	X		32
Holden	006524	4	779	26.00	\$26.90	\$699.40	8/30/94	---	2/1-2/15/94	X	X		33
		4	779	52.00	\$26.90	\$1,398.80	8/30/94	---	2/1-2/15/94	X	X		
Wojtkowsk	007575	765	19	80.00	\$34.82	\$2,785.60	4/26/94	---	2/1-2/15/94	X	X		34
Yancey	009075	752	739	13.00	\$16.25	\$211.25	6/15/93	7/15/93	5/24-5/25/93	X	X		35
Yancey	009075	752	732	24.00	\$16.06	\$385.44	5/6/93	---	4/5, 4/7, 4/8/93	X			36
		732	752	24.00	\$16.06	\$385.44	5/6/93	---	4/21, 4/23, 4/26/93				37
Haynie	009723	20	758	15.00	\$13.48	\$202.21	9/28/94	---	4/1-4/15/94	X	X		38
Orrell	020046	780	782	44.00	\$10.99	\$483.56	11/30/94	---	4/1-4/15/94			X	39
Boles-Petr	000454	725	742	2.00	\$ 15.28	\$30.56	9/24/92	10/24/92	9/8/92	X			40
Connors	000554	10	14	43.00	\$ 31.61	\$1,359.23	1/25/93	2/22/93	12/1-12/31/92		X		41
			739										
			4										
Connors	000554	730	13	32.00	\$ 31.61	\$1,011.52	1/25/93	2/22/93	12/1-12/31/92		X		41
Connors	000554	731	503	54.00	\$ 31.61	\$1,706.94	1/25/93	2/22/93	12/1-12/31/92		X		41
			502										
			748										
Cothran	004021	721	****	91.00	\$ 17.47	\$1,589.77	5/12/92	----	3/16-3/31/92	X	X		42

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Booz-Allen & Hamilton, Inc.  
McLean, VA  
Contract No. N00612-91-D-8001  
Results of Audit

<u>Employee Name</u>	<u>Emp #</u>	<u>Labor Changes</u> 09005-949-xxx		<u># Hrs</u> (a)	<u>Cost Rate</u> (b)	<u>Per Audit Amount of Adjustment</u> (a) * (b)	<u>Original Date of TIA</u>	<u>Changed Date of TIA</u>	<u>Exact Dates Being Adj.</u>	<u>Task was overrun at time of adjustment.</u> (1)	<u>Period between labor incurred and adj. was unusually long.</u> (2)	<u>There was a travel voucher which did not support the change.</u> (3)	<u>See Reference Note</u>
		<u>From Job No.</u>	<u>To Job No.</u>										
Craig	004115	721	****	31.00	\$ 13.72	\$425.32	6/25/92	---	3/9-3/11/92	X	X		43
Craig	004115	728	9	8.00	\$ 17.80	\$142.40	8/24/92	---	7/10/92	X			44
Han	008877	8	14	12.00	\$ 8.48	\$101.76	1/29/93	3/29/93	12/21-12/22/92	X	X		45
James	020676	10	503	30.00	\$ 12.93	\$387.90	1/29/93	2/22/93	12/1-12/15/92		X		46
James	020676	730	502	15.00	\$ 12.93	\$193.95	1/29/93	2/22/93	12/1-12/15/92		X		
James	020676	731	748	16.00	\$ 12.93	\$206.88	1/29/93	2/22/93	12/1-12/15/92		X		
Richards	003174	716	****	45.00	\$ 52.21	\$2,349.45	11/11/92	---	10/16-10/23/92				47
Rittenhous	008693	12	****	91.00	\$ 38.50	\$3,503.50	11/11/92	---	10/16-10/30/92				48
Yancy	009075	744	740 733	72.00	\$ 16.25	\$1,170.00	2/3/93	---	1/18-1/31/93	X			49

Total of listed transactions  
before addition of indirect cost rates:

\$46,155.23 (4)

**Notes:**

- (1) Task was overrun per BAH's Project Cost Report.
- (2) Criteria for "unusually long" was more than 2 pay periods or one month.
- (3) Auditor found a travel voucher for the employee, for the same day, which does not support the change.
- (4) The dollar amount of \$46,155.23 is labor only and does not include allocable indirect expenses.

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McLean, VA 22102  
Contract No. N00612-91-D-8001  
Results of Audit

Explanatory Notes

1. There are no additional findings, other than the items represented by "X" on EXHIBIT A, pages 1 through 4.
2. Original timesheet has 40 hours posted to training.
3. Original timesheet has change from task no. 713.
4. Original timesheet has 36 hours posted to task no. 020. Task was \$315 from being overrun.
5. Original timesheet has 15 hours posted to task no. 738. Not signed until 7/26/93.
6. Original timesheet has 10 hours posted to task no. 014 and 7 hours posted to task no. 745.
7. Original timesheet has 87 hours posted to task no. 017.
8. Original timesheet for PPE 4/15/93 has 58 hours posted to task no. 745 and 29 hours posted to task no. 014. Original timesheet for PPE 4/30/93 has 81 hours posted to task no. 745.
9. Made adjustment to contract no. N68944-93-M-7111, job no. 09005-0993-0001, which began on 9/7/93.
10. Made adjustment to contract no. N68944-93-M-7111, job no. 09005-0993-0001, which began on 9/7/93.
11. Original timesheet has 73 hours posted to task no. 024.
12. Original timesheet has 40 hours posted to task no. 019 and 4 hours posted to task no. 025.
13. Original timesheet amount transferred in total for task no. 757.
14. Original timesheet amount transferred in total for task no. 757.
15. Original timesheet has 74 hours posted to task no. 022.
16. Made adjustment to contract no. N68944-93-M-8118, job no. 09005-0994-0001, which began on 9/10/93.
17. Adjustments were made due to error in responsibility center no. Original timesheet has changes posted from task no. 022 to task no. 025 for 52 hours. Changes are out of sequence.
18. Adjustment states "to correct key error". No evidence of key error noted.
19. Original timesheet has 80 hours posted to task no. 785 and 17 hours posted to task no. 791.
20. Employee timesheet for PPE 8/31/94 was signed by Connors on 8/31/94 and another timesheet for PPE 8/31/94 was signed by Connors on 9/21/94.
21. Original timesheet has 8 hours posted to task no. 026 and 38.5 hours posted to task no. 776.
22. Original timesheet has 27 hours posted to task no. 776.

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Contract No. N00612-91-D-8001  
Results of Audit

Explanatory Notes

23. Adjustments were made due to error in responsibility center no.  
Original timesheet has changes posted from task no. 018 to task no. 025 for 8.5 hours and from task no. 024 to task no. 028 for 6 hours. Task no. 018 was overrun at 3/31/94.  
Task no. 025 began on 1/31/94.
24. Made adjustment to contract MDA911-93-D-0001, job no. 09003-0355-0170,  
which began on 2/16/93. Original timesheet had 80 hours posted to the  
job no. 09003-0355-0170 contract.
25. Original timesheet has 97 hours posted to task no. 785.
26. Original timesheet has 84 hours posted to task no. 780.
27. Question of potential duplicate entry of above.
28. Original timesheet has 57 hours posted to task no. 780, and changed to task no. 789. Task  
was overrun until adjusted by the preceding adjustment for Orell.
29. Original timesheet has 40 hours posted to task no. 021.
30. Original timesheet has 36 hours posted to task no. 765 and 28.5 hours posted to  
task no. 019.
31. Original timesheet has 46 hours posted to task no. 755. Employee terminated 1/94. TIA  
submitted 9/28/94.
32. Original timesheet has 72 hours posted to task no. 775.
33. TIA is signed by someone "for Ben Holden".
34. Original timesheet has 80 hours posted to task no. 765.
35. Original timesheet has changes totaling 24 hours from task no. 752 to task no. 755.
36. To decrease task no. 752 expenses during PPE 4/15/93. Task was \$118 from being  
overrun.
37. To increase task no. 752 expenses after PPE 4/15/93.
38. Original timesheet has 14 hours posted to task no. 020 and 14 hours posted to task no. 758.  
Original timesheet was rewritten due to messy appearance.
39. TIA states "to correct key error". No evidence of key error noted.
40. Original timesheet has 2 hours posted to task no. 725.
41. All hours posted to task numbers 010, 730 and 731 were changed. None of the other  
tasks on original timesheet were changed. TIA states charge numbers were posted  
incorrectly. Connors is Program Manager, confusion over charge numbers on his own

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Contract No. N00612-91-D-8001  
Results of Audit

Explanatory Notes

- timecard, does not appear to be a reasonable explanation.
42. Made adjustment to contract no. N00612-86-D-8004, job no. 09005-849-721, which began on 8/28/86.
  43. Made adjustment to contract no. N00612-86-D-8004, job no. 09005-849-721, which began on 8/28/86.
  44. Original timesheet has 21 hours posted to task no. 728 and 39 hours posted to task no. 009.
  45. Original timesheet has 12 hours posted to task no. 008. TIA not signed by employee.
  46. Original timesheet has 30 hours posted to task no. 010, 28 hours to task no. 730 and 30 hours posted to task no. 731. These changes are combined with Connors' for the same period.
  47. Made adjustment to contract no. N00019-88-D-0212, job no. 09005-894-012, which began on 5/31/88. Original timesheet has 45 hours posted to task no. 716, and 44 hours posted to job no. 09005-894-012.
  48. Made adjustment to contract no. N00019-88-D-0212, job no. 09005-894-012, which began on 5/31/88. Original timesheet has 91 hours posted to task no. 012.
  49. Original timesheet has 72 hours posted to task no. 744.

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27 May 1994  
94T-44

NISE EAST  
4600 Marriott Drive  
N. Charleston, SC 29406

Attention: Mr. J. Webb, Code 311

Subject: Resumes for all staff charging to Contract No. N00612-91-D-8001

Enclosure: Staff resumes

Enclosed please find the above referenced staff resumes, IAW with contract N00612-91-D-8001, Clause C8A.

Please refer any questions or comments to the undersigned at (803)529-4804.

Sincerely,



BOOZ ALLEN & HAMILTON, Inc.

Robert L. Connors  
Senior Associate

Bates, S  
Bombard, T  
Bullington, J  
Connors, R  
Cothran, J  
Craig, D  
Davies, P  
Davis, R  
Ego, J  
Fletcher, T  
Flower-LeMaster, M  
Gadson, T  
Hawley, B  
Haynie, J  
Holden, B  
Holman, H  
Humbertson, B  
Hunter, O  
James, A  
Jonsson, B  
Karon, C  
Legg, B  
Lloyd, B  
Maxwell, SM  
McDowell, D  
Meyers, J  
Nelson, CV  
Orrell, C  
Paese, M  
Richards, D  
Schubert, T  
Shuler, M  
Siems, R  
St. Sauver, G  
Stephens, K  
Wells, G  
Wheatley, K  
Wilson, D  
Wilson, J  
Wotjkowski, B

110

**Name:** SHARON D. BATES

**Labor Category:** Logistics Engineer/Analyst

**Total Years Experience:** 17 1/2

**Education:**

M. S., Administration/MIS, 1989

B. S., Education, 1976

**Clearance:** Secret

**Relevant Experience:**

Ms. Bates has more than 14 years of experience in logistics, analytical research, data processing, and foreign military sales. At Booz-Allen, Ms. Bates provides logistics management support requiring knowledge of all elements of integrated logistics support (ILS), but oriented to the supply support element, of air traffic control (ATC) systems including identification, friend or foe, landing systems, and air navigation aids. Ms. Bates is involved in all aspects of the supply support/provisioning process for ATC and landing systems including pre-provisioning, provisioning preparedness review, and provisioning conferences.

Ms. Bates is involved in the Procurement Request development process and has participated in numerous ILS Management Team meetings in support of the Naval Air Systems Command Assistant Program Manager for Logistics (APML). Her familiarity with Statement of Work and Contract Data Requirements List has assisted her as she has developed, reviewed and analyzed draft contract requirements and contract modifications. She has reviewed and commented on numerous ILS Plans making her very familiar with requirements.

Ms. Bates has also been associated with and participated in planning meetings for transition of mature ATC systems to designated field activities. She interfaces with PMA213 field activities concerning various aspects of equipment for ATC sites. She provides on-site support of daily tasks including budget formulation, requirements determination, tracking and expediting. Ms. Bates has been involved in the planning and executing of support tasks to satisfy customer requirements in view of cost effectiveness and required delivery dates. These efforts include initiating maintenance actions to support ship class plans under the Surface Ship Engineered Operating Cycle Program and developing, implementing, and maintaining automated tracking systems to ensure programs are running smoothly and in a cost-effective manner. Ms. Bates coordinates the initiation of financial documents to maintenance facilities, Contracts and other government activities engaged in the furnishing of supply support and services. She monitors and reviews logistics documentation for correct supply support posture and unsatisfactory material reports to identify problems and items that are causing or may cause prolonged work stoppage at maintenance activities, seriously degrade fleet operations or may cause chronic supply problems. In support of this, Ms. Bates assesses alternative short-range and long-range corrective supply action and initiates emergency action to resolve material shortages. In addition, she performs other duties including providing information and preparing appropriate briefs and displays to appraise the APML, Logistics Element Managers, Program Managers, and Type Commanders of asset availability, condition, age, and the ability of the Command to meet support requirements.

Ms. Bates monitors, updates, and analyzes Fleet Modernization Program Management Information System data to ensure fleet requirements are met in a timely and efficient manner. She maintains daily communication with supply centers and repair facilities to expedite requisition processing and

to provide requisition status. She also maintains and updates the Naval Weapons Systems File to monitor inventory levels, to process requisitions, and to eliminate duplication of procurement and spares efforts. Ms. Bates developed and maintains various automated tracking systems to monitor backorder requisitions, contracts, and budgeting information. She also initiates cataloguing actions for ATC equipments with Ships Parts Control Center (i.e., NSN assignment, SM&R coding, NSN removal for obsolete items).

Previously, Ms. Bates provided program and financial management support to the Radioactivity Detection, Identification, and Computation (RADIAC) Program Office of the Space and Naval Warfare Systems Command (SPAWAR) by reviewing program requirements and recommending automated systems to meet requirements more efficiently. She designed and implemented reports for the RADIAC Program Office using LOTUS 123 and dBase III+ and also trained RADIAC clients in LOTUS 123.

Ms. Bates supported financial management for the SPAWAR Foreign Military Sales (FMS) Case Management Office. She researched and analyzed cases; prepared price and availability packages and FMS Obligational Authority and Planning Directives (DD Forms 2060/2061); estimated payment schedules, termination liability, and non recurring cost recoupment charges; and contributed to SPAWAR correspondence.

Previously, Ms. Bates supported civilian manpower management to the Saudi Naval Support Program Office, monitoring military and civilian Saudi Arabian billets, maintaining automated computer system to provide manpower data, and process manpower change requests. She also researched and analyzed administrative requirements and recommended changes to improve program efficiency.

Before joining Booz, Allen, Ms. Bates maintained an automated data system and audited employee performance for banking association.

**Name:** TRACY A. BOMBARD

**Labor Category:** Junior Systems Engineer/Analyst

**Total Years Experience:** 6

**Education:**

B.S., Electrical and Computer Engineering, 1987

M.S., Electrical Engineering, 1993

**Clearance:** Secret

**Relevant Experience:**

Mr. Bombard has over six years experience in systems engineering and technical management of Air Traffic Control (ATC) ground, avionics and space systems.

At Booz•Allen & Hamilton, Mr. Bombard is responsible for assessing candidate technologies for precision approach, landing and departure. These assessments include technical institutional, and operational considerations, including cost vs. operational effectiveness.

Prior to joining Booz•Allen, Mr. Bombard was employed by the DoD Air Traffic Control and Landing Systems (ATCALS) Program Office. Mr. Bombard coordinated systems engineering and acquisition management activities for four programs involved with the fielding of international standard ground and avionics equipment for civil and tactical missions. He served as the acquisition focal point for the military's evaluation of space-based precision landing technologies. As ATCALS Chief Engineer, he managed and guided the efforts of nine military and civilian program managers involved with test and integration of precision related systems. He directed and coordinated the systems engineering and acquisition support tasks of 38 engineers, cost analysts, and logisticians while interfacing with other military elements regarding requirement concerns for navigation and landing systems.

Mr. Bombard has been directly involved with conducting detailed studies to assess the capability of Global Positioning System (GPS) satellite technologies to meet wartime and peacetime ATC requirements. He chaired a Cost and Operational Effectiveness Analysis (COEA) team tasked with developing a technical evaluation plan for precision landing system alternatives for consideration by DoD policy makers. He represented his organization in military and civil aviation forums, making numerous presentations to executive-level military and civil aviation decision makers.

Prior to his involvement with the ATCALS Office, Mr. Bombard managed an equivalent Precision Landing Systems (PLS) Office, Avionics Division, where he directed the on-time completion of multiple contracts for design and development of a dual-mode (MLS/ILS) militarized receiver targeted for installation on over 5000 aircraft. He chaired integration and test activities leading to highly successful evaluations of this first-ever avionics package. Mr. Bombard also completed contracts to fabricate breadboards and test the feasibility of advanced MMIC and VLSI technology for RF and digital applications within the receiver.

Mr. Bombard played key roles, and was directly involved with integration and evaluation studies related not only to precision landing systems, satellite navigation issues, and military/civil requirements definition, but also defense-related aviation areas such as system compatibility with the F-16 data bus architecture and aviation suite. In the latter area his expertise was utilized for flight tests in which fixed and rotary wing aircraft were flown against tactical ground stations.

**Affiliations:**

Air Force Association and the Institute of Navigation (ION)

✓, two corp? exp?  
10 yrs

**Name:** ROBERT L. CONNORS

**Contract** N00612-91-D-8001

**Labor Category:** Systems Engineer/Analyst

**Total Years Experience:** 10

**Education:**

B.S., Electrical Engineering, Georgia Institute of Technology, 1983

A.E.E.T., Electronics and Computer Engineering, Southern Technical Institute, 1981

**Clearance:** Secret - DISCO

**Relevant Experience:**

Mr. Connors has over 10 years of professional engineering and program management experience. His areas of expertise include Air Traffic Control (ATC) systems engineering, airspace analysis, ATC system operational evaluation and program management. His systems engineering experience includes technologies associated with Department of Defense (DoD) and Federal Aviation Administration (FAA) ATC systems, including radar and processing and display systems, weather systems, communication, navigation and advanced surveillance systems, and shipboard landing systems. Mr. Connors' engineering experience also includes fire control radar and missile systems.

Mr. Connors currently serves as systems engineer and manager of Booz Allen's contract with the NCCOSC In-Service Engineering Center East Coast (NISE East), Charleston S.C (previously NAVELEXCEN Charleston). As Booz Allen's Charleston office manager and NISE East contract manager, he supervises all staff and tasking. His responsibilities include office management, contract financial management, systems engineering, marketing and staff development.

As NISE East program manager, Mr. Connors leads a staff of systems engineers, ATC operations specialists, software engineers, logisticians and research assistants. In support of NISE East, Mr. Connors provides systems engineering support to all Navy efforts associated with the modernization of the National Airspace System (NAS). He is currently the principle investigator analyzing the equipment and operational impact of the civilian NAS modernization efforts on the Navy. As part of this evaluation, he is responsible for analyzing alternative systems, including Commercial Off-The-Shelf (COTS) processing and display systems, digital radar extractors and tower processing and display systems. Mr. Connors manages several systems integration tasks, including the prototype development of a RF link Air Field Lighting and Control System (AFLCS), a VME-based Tower Processing System (TPS), an airspace analysis Geographic Information System (GIS) and a Distributed Graphics System (DGS) for range surveillance, control and airspace scheduling operations. Mr. Connors manages several airspace analysis tasks, including update of the Navy Project Blue Air, an analysis of the Navy's airspace requirements throughout the U.S., analysis of airspace at all Navy and Marine Corps Air Stations and studies analyzing the Navy's airspace requirements along the southeast and western U.S. coastlines. Mr. Connors manages several information system development efforts, including a project cost information system for NISE East and an Automated Airspace Management System (AAMS), a distributed information system for airspace managers. Mr. Connors also manages numerous logistics support efforts, including the development of Integrated Logistics Support (ILS) plans, technical manuals and Navy ATC site support manuals.

Prior to his management assignment on the NISE East contract, Mr. Connors managed and coordinated Booz Allen's work under the Volpe National Transportation Systems Center (VNTSC)



OMNI contract for Communication, Navigation and Surveillance (CNS) systems. He also provided support for FAA Weather Systems and ARSR-4 radar system acquisition engineering. Previously, he led the efforts of a group of engineers providing engineering and acquisition support to the FAA and the Naval Air Systems Command (NAVAIR). Mr. Connors was the former leader of the VNTSC/FAA Precision Runway Monitor (PRM) program and various NAVAIR programs, including shipboard ATC systems, precision approach landing systems, and Beacon Identification (ATCRBS/IFF systems).

On the FAA PRM program, Mr. Connors performed systems engineering efforts, including the analysis of the PRM developmental system performance, review of contractor design documentation, and generation of procurement documentation for a production PRM system. Mr. Connors' responsibilities included the development of a complete R&D acquisition package including the development of a detailed technical specification, a statement of work, and contract data requirements.

In support of NAVAIR programs, Mr. Connors was responsible for systems analysis, all acquisition documentation development and technical support after contract award. His program responsibilities included the AN/SPN-43 Carrier Surveillance Radar, the AN/SPN-46 Aircraft Carrier Landing System, the AN/TPX-42 Air Traffic Control System, and IFF systems, including the AN/UPX-24 Interrogator System, AN/UPX-27 Interrogator, MX-8758/UPX Interference Blanker, OE-120 Electronically Steered Antenna, and the Centralized IFF System.

Mr. Connors has developed mission requirements and translated the requirements into technical specifications for primary and secondary radar systems. These included a network of three range radar systems for the Naval Strike Warfare Center and long-range 3D radar systems for the Caribbean Regional Operations Center (CARIBROC) involving processing for radar combining, decision-making and display technology. He has analyzed airport surveillance radars (ASR's), air-route surveillance radars (ARSR's), search radars and primary/secondary radar digitizers. These include the AN/GPN-27 (ASR-8), ARSR-4, AN/TPS-70, Common Digitizer, and the Radar Beacon Digitizer (CV-3682/UPX).

Mr. Connors has analyzed command control systems and communication interface requirements for the Navy's FACSFAC system and CARIBROC, which involved secure SATCOM data transmission. Mr. Connors has worked on multi-service programs, has served as a member of a technical evaluation team for the U.S. Army on an integrated primary and secondary radar system, and has supported proposal preparation and evaluation.

Previously, Mr. Connors was employed as an engineering supporting Naval weapon system readiness. His assignments included development of program performance specifications for computer-supported operability testing of the AN/SPG-55B fire control radar and analysis of the TERRIER weapon system, including the AN/SPG-55B pulse and doppler signal processors, the Weapon Direction System (WDS), the AN/SPS-48C/E surveillance radar, and the TERRIER missile launcher system.

### **Employment History:**

Dec 1985 to Present  
Dec 1983 to Dec 1985

Booz Allen & Hamilton, Inc.  
Vitro Corporation

### **Affiliations:**

Air Traffic Control Association (ATCA)  
Institute of Electrical and Electronic Engineers (IEEE)  
Armed Forces Communications Electronics Association (AFCEA)

Tau Beta Pi - Engineering Honor Society  
Eta Kappa Nu - Academic Honor Society

OK

**Contract N00612-91-D8001**

**Name: JANE L. COTHRAN**

**Labor Category:** Computer Systems Analyst

**Total Years Experience:** 12

**Education:**

B.A. Urban Design, College of Charleston, Charleston, S.C., 1980.

Continuing Education, completed 29 credit hours in Computer Science, College of Charleston, Charleston, S.C., 1982-1986.

Completed training courses in Intergraph's Graphic, Mapping, Database Management, and Programmers Interface for VMS/IGDS, Intergraph Corporation, Huntsville, AL., 1982-1984.

M.A. Computer and Information Resources Management, Webster University, North Charleston, S.C., 1991.

Certification: Certified NetWare Engineer (CNE), 1993.

**Clearance:** Secret

**Relevant Experience:**

*Booz Allen & Hamilton, Inc. (June 1988 to Present)*

As a Computer Systems Analyst, Ms. Cothran provides systems/programmer analysis support for NISE EAST Air Traffic Control Facilities Engineering Division, responsible to four projects: Geoprocessing, MOMMS, CDM, and Local Area Networks (LANs).

*Geoprocessing (June 1988 to Present)*

Ms. Cothran is responsible for the software development, data analysis, and map generation on the Intergraph Micro VAX 200 to generate radar line-of-sight coverage analysis for specific site locations. Ms. Cothran utilizes FORTRAN to manipulate the line-of sight software to address site specific analysis. She is responsible for the complete automated efforts which include the generation of three-dimensional terrain maps using the Defense Mapping Agency's digital geographic data to provide radar and communications coverage analysis. Ms. Cothran provides systems support being responsible for troubleshooting system performance for the Micro VAX 200.

*MOMMS (October 1989 to Present)*

Ms. Cothran has provided software support and program development for the MOMMS responsible to approximately 90 Naval Air Stations and Mobile In-shore Undersea Warfare (MIUW) Units. As such, she was responsible for instructing the MOMMS user training classes, maintaining a Software Support Hot Line, providing programming support in Foxpro to repair MOMMS corrupt database files, and act as liaison between the Air Stations and NAVMASSO, Weapons Station Concord, the Ships Parts Control Center (SPCC), and the Naval Sea Logistics Center (NAVSEALOGCEN). As liaison, Ms. Cothran coordinated Stations initializations into the Ships Configuration and Logistics Support Information (SCLSI) database, established Stations Automated Shore Interface (ASI) and Planning Yard status, and initiated Coordinated Shorebased

Allowance List (COSBAL) generation. She was responsible for resolving the Current Ships Maintenance Plan (CSMP) upload errors with NAVSEALOGCEN, rectifying Air Stations reporting and transmission errors. Ms. Cothran was responsible for working with the TYCOMs and 3-M Coordinators to resolve discrepancies between MOMMS and the Weapon Systems File (WSF). In addition, Ms. Cothran was responsible for the research and procedures development to provide cost and time savings work around in the SCLSIS Loop, such as building Station's MOMMS databases via the ASI process rather than the costly E52 Build.

As of February 1993, Ms. Cothran provides MOMMS support on an as needed basis to resolve and repair MOMMS corrupt database files and to provide MOMMS system interface solutions for the CSMP uploads, Configuration Data Manager (CDM), WSF, and ASI downloads as they evolve within the SCLSIS Loop.

*CDM (October 1989 to Present)*

Ms. Cothran has provided software support and program development for the CDM project responsible to approximately 90 Naval Air Stations and MIUW Units. Ms. Cothran was responsible for utilizing the Micro Configuration Status Accounting (Micro CSA) System to maintain an accurate and valid equipment baseline for each Air Station and MIUW Unit. She was responsible for the installation of equipment configuration and logistic support information as submitted by the Stations. This process included the review, research, and cleanup of equipment information, coordination with Stations concerning discrepancies, and the submission of the equipment records to the SPCC to provide updates to the WSF. Ms. Cothran was responsible for a staff of four by which she organized task objectives and procedures, delegated task responsibilities, and provided training to support the CDM project. In addition, she was responsible for coordinating efforts between NAVSEALOGCEN, SPCC and NAVMASSO to ensure the integrity of the SCLSIS Loop and initiated Station realignments and consolidations with SPCC, NAVSEALOGCEN, NAVMASSO, Weapons Station Concord, and Weapons Station Earl. Ms. Cothran was responsible for system support in an coordinated effort with Navy Computer and Telecommunications Station, Jacksonville (NAVCOMTEL JAX) to correct programming bugs, provide work around solutions for programming restrictions, and provide input for future program development.

As of February 1993, Ms. Cothran provides CDM support on an as needed basis to resolve Station realignments, and to provide CDM system interface solutions for the MOMMS, WSF, and ASI downloads as they evolve within the SCLSIS Loop.

*LAN (February 1993 to Present)*

Ms. Cothran is responsible for the LAN support for the CDM Server. As such she installed the NetWare v3.11 upgrade and backup software for CDM integrity. She is responsible for the CDM Server's performance and troubleshooting to provide network solutions. Ms. Cothran has provided LAN research for Code 311 investigating Intelligent Wiring Hubs and configurations as a future LAN solution. Ms. Cothran has provided the Commander Naval Surface Reserve Force Engineering and Maintenance Department at NAS New Orleans a LAN research paper evaluating server based and peer-to-peer networks. As such, she was tasked to install Microsoft Workgroups for Windows for which she installed the cable, network software, established users and shared peripherals. Ms. Cothran is presently providing LAN support for the 31 and 41 Departments.

*Computer Dynamics, Inc. (March 1987 to June 1988)*

As a Programmer Analyst, Ms. Cothran was responsible for several projects supporting NISE EAST Charleston Automated Data Processing system development. She was responsible for the

development and implementation of new application software and modification to existing software utilizing COBOL on a WANG VS300. In addition, Ms. Cothran was responsible for instructing personnel in systems use, writing the corresponding user's manual, and providing associated technical documentation.

*Santee Cooper (June 1982 to March 1987)*

As a Technical Associate, Ms. Cothran was responsible for the installation, maintenance and the development of system and application programs on an Intergraph VAX 11/780. Ms. Cothran provided team leader support in the development of the database for Santee Cooper's Automated Mapping and Facilities Management Project utilizing Intergraph's graphic, mapping, and database software. As such, responsibilities included writing application software using FORTRAN to manipulate graphic design files and its associated database. In addition, Ms. Cothran provided system support being responsible for the installation of software releases and the troubleshooting of system performance for the VAX 11/780. Ms. Cothran provided end user support instructing others in the use and functions of Intergraph applications and in applications developed in-house.

**Employment History:**

June 1988 to Present  
March 1987 to June 1988  
June 1982 to March 1987

Booz-Allen & Hamilton, Inc.  
Computer Dynamics, Inc.  
Santee Cooper

5 yrs exp?

**Contract N00612-91-D8001**

**Name: DONNA M. CRAIG**

**Labor Category:** Computer Systems Analyst

**Total Years Experience:** 6

**Education:**

B.S., Business Administration/B.A., Political Science, Mary Washington College, 1987.  
Additional computer sciences courses, George Mason University, 1989-1991.  
M.S., Management Information Systems, The George Washington University, in progress.

**Clearance:** Secret

**Related Experience:**

Ms. Craig has six years of experience in the design, development, implementation and support of information systems, with emphasis in the area of integrated DOD systems.

Ms. Craig supported the Naval Electronic Systems Engineering Center (NAVELEXCEN), Charleston in its application of the Navy's consolidated fleet engineering and logistics data management program called Ship Configuration and Logistics Support Information System (SCLSIS). Initiatives under this program include Configuration Data Management (CDM), Micro Organizational Maintenance Management System (Micro OMMS), and System for Performance Measurement (SPM). In previous tasks, she was responsible for:

- Writing the program management plan for transitioning the Navy Air Traffic Control (ATC) community to SCLSIS (which is now used as a template by other communities seeking CDM certification)
- Supporting implementation of the Navy's PC-based configuration data management system called Micro CSA.
- Defining hardware and supporting software configuration for the CDM operation.
- Writing the CDM Operator's Guide which defines community-specific operating procedures and serves as a reference guide for many shore-based CDMs.
- Developing a program for training CDM operators and program analysts.
- Performing requirements analysis and feasibility studies to enhance the performance and cost effectiveness of shore-based SCLSIS reporting.
- Implementing data interface procedures to transfer configuration baseline and corrective maintenance data to external information systems.
- Reviewing SCLSIS, Micro OMMS and Micro CSA functional descriptions/interface documents to determine areas for tailored shore-based changes.

Ms. Craig also supported the Micro OMMS program, the mechanism for source data reporting within the SCLSIS network, in several capacities. (Micro OMMS is a functional emulation of the Navy's Shipboard Non-Tactical ADP [SNAP] System.) She developed the initial system documentation, tutorial, and training course to instruct over 175 students in the use of Micro

OMMS, and served as the primary instructor for the formal three and one-half day program.

Ms. Craig also designed and coded an information system to manage correspondence, trouble reports and change proposals generated by Micro OMMS users. She also worked with NAVELEXCEN Charleston to transition its Micro OMMS users to the upgraded Micro SNAP (Shipboard Non-tactical ADP Program) system and modify the MOMMS course curriculum to reflect changes in the new software.

Ms. Craig provided systems analysis and programming support (in previous system versions) to NAVELEXCEN Charleston in development of the System for Performance Measurement (SPM). The PC-based SPM system generates reliability and maintainability (R&M) statistics on installed DOD equipment. Corrective maintenance data reported via MOMMS is processed against configuration baseline data extracted from the Micro CSA system to calculate Availability ( $A_0$ ), Mean Time Between Failure (MTBF), Mean Time to Repair (MTTR) and other performance measures. The reports produced by the system are used to assess corrective maintenance deficiencies and resource allocation needs at over sixty DOD activities.

Ms. Craig was the task leader for development of the USAF Flight Standards Agency's Automated Airspace Management Support (AAMS) System. AAMS is an integrated, PC-based system to be used to provide a data link between airspace managers nation-wide. The current system version consists of two applications (host and remote) which provide the capability to:

- Automate the submission, review and integration of periodic updates to formal planning documents
- Establish a central repository of management documents for on-line reference and local review/printing of pertinent extracts
- Enhance the accuracy, completeness and coordination of standard forms/proposals/reports by employing expert help
- Support automated transfer of electronic documents and messages between system users.

Ms. Craig is currently developing a multi-platform system to automate the preparation of tailored human factors checklists by Air Traffic Control subsystem evaluation teams. In other areas of MIS tasking, Ms. Craig converted a DOS-based Procurement Request (PR) system written in dBASE III+ to a multi-user FoxBASE+ application running on the Macintosh platform. The system leverages use of the Macintosh interface in both screen and program design. Ms. Craig also designed and developed a Windows-based RDBMS called the ISAM Personnel Tracking System to manage personnel, dependents and assets assigned to foreign countries. She also developed an operational DBMS to manage PRs issued by the FAA's weather systems branch (Code ANW).

Ms. Craig has also worked with a team of analysts on a number of airspace studies for the USAF. This included conducting a study of White Sands Missile Range (WSMR) for inclusion in the Air Force Systems Command (AFSC) Master Airspace Plan, and reporting on the potential impacts of NAS modernization, the posturing of civil aviation, and the relationships between the USAF/US Army study and an earlier airspace study completed for the Navy for inclusion in the USAF/USA Project Blue Air Study.

Prior to joining Booz, Allen, Ms. Craig was a program specialist for an international telecommunications firm where she tailored software for data network clients. She also developed management information systems; trained in-house personnel and clients in the use of data networks, communications terminals, and communications software; and performed alpha-site

testing of new network services and software packages.

As a summer intern for a small management consulting firm, Ms. Craig provided research and analytical support to the Special Projects Division. She participated in the development of a quality assurance program for helicopter helmet testing; wrote technical instructions for NAVSEA, Code 06 contracts management; and drafted position descriptions for NAVSEA engineering billets.

Ms. Craig was a summer research assistant at the Central Intelligence Agency where she supported a number of classified projects.

**Employment History:**

1988 - Present	Booz, Allen & Hamilton Inc.
1987 - 1988	Graphnet Inc.
1986 - 1987	MATRIX Corporation
1984 - 1986	Central Intelligence Agency



**Name:** PHILIPPA S. DAVIES

**Labor Category:** Technical Assistant

**Education:**

Two Year Business Course at Elmhurst Business  
College in Surbiton, Surrey, England  
Equivalent to Associates Degree in Business

**Clearance:**

**Relevant Experience:**

Ms. Davies has over 22 years experience in the areas of Office Management, system support and administration. For the past six years she has worked as an executive support specialist in the area of Landing & Communication Systems at Textron Defense Systems.

At Booz•Allen & Hamilton, Ms. Davies is a Research Level A supporting civil, national and international clients for USAF Air Traffic Control and Landing System Program Offices. She provides systems support for three staff personnel. Additional duties include maintaining program data bases, conducting background research in ATCALS technical areas, and maintaining extensive programmatic libraries. For the UK Civil Aviation Authority she provides system support in the areas of GNSS evaluations. This project evaluates satellite based technologies for precision approach and landing operations. Ms. Davies also supports international marketing activities such as the UK Ministry of Defense project Definition Phase II for MLS.

Prior to joining Booz•Allen, Ms. Davies was an executive support specialist to the Director Business Acquisition, Landing & Communications Systems at Textron Defense Systems. She provided systems, financial, and administrative support to the Acquisition Director and four Acquisition Executives, and was also responsible for preparing presentations, maintaining documentation, and producing government documents for several large DoD programs, including the USAF Mobile Microwave Landing System (MMLS), US Navy Aircraft Carrier Landing System (SPN-46), USAF Peacekeeper Missile, Mark III Missile (Minuteman), and WAM (Wide Area Mine sensor fused munitions). Additionally she engaged in extensive contact with customers, international and domestic, and arranged hotels and meetings for overseas personnel and other employees. In addition, Ms. Davies coordinated all domestic and foreign currency expense reports. She also acted as client liaison for the Director when this individual was on overseas assignments which included responding to the immediate needs of various government systems program offices.

Prior to serving as an executive support specialist at Textron, Ms. Davies supported the VP/Group Controller at Gould Inc. Her duties included executive resource planning, scheduling, documentation to correspondence and financial reporting.

Ms. Davies is proficient in several Macintosh programs, including Word, PowerPoint, MacDraw, MacSchedule and Excel and has developed a strong background in International Business Coordination.

no degree  
work exp?

**Contract N00612-91-D8001**

**Name: JOSEPH R. DAVIS**

**Labor Category: Senior Engineer**

**Total Years Experience: 27**

**Education:**

B.S., International Relations, US Air Force Academy, 1966.  
M.A., Management, Webster University, 1980.

**Clearance: Secret**

**Relevant Experience:**

Mr. Davis has been principally engaged in airspace management and associated flight operations management since 1977. In his airspace management assignments while on active duty in the US Air Force, and subsequently in a variety of large scale airspace management and military flight operations studies, Mr. Davis has developed and refined operations requirements for air traffic services in terminal, enroute and Special Use Airspace environments. He has specialized in enhancing coordination and cooperation between the Department of Defense (DoD) and Federal Aviation Administration (FAA), and between DoD and various civil aviation organizations and air carrier industry firms and associations. These assignments have involved domestic and international issues related to air traffic control, airspace and flight operations, and air sovereignty.

Mr. Davis is currently leading Booz•Allen's airspace management research and document preparation efforts for both the US Navy update to its Special Use Airspace analysis (Project Blue Air II) and the US Air Force Air Combat Command Airspace Master Plan. He recently completed an Executive Summary of DoD airspace planning and evaluation efforts for the Policy Board on Federal Aviation (PBFA). He is also engaged in two airspace related systems development tasks: he provides technical expertise on development of an automated airspace documentation system, the Airspace Management Support System (AMSS); and managed the firm's task to develop a Geographic Information System (GIS) to support environmental analysis of existing and planned airspace.

Mr. Davis managed Booz, Allen's effort in preparation of a ten year Airspace Master Plan for Headquarters, United States Air Force, which addressed the requirements to integrate military flight operations safely and efficiently into the evolving civil air traffic control and airspace structure. This project required extensive analysis of civil air traffic, environmental and airport capacity and a continuing analysis of civil and military technical development programs in support of the National Airspace System. Research for this task included consultation with Department of Defense operations, systems development and environmental staff agencies, a variety of FAA activities and offices, and private and public sector aviation interests throughout the country. At the conclusion of this task, Mr. Davis developed a Major Command airspace plan for the Air Force Reserve.

Prior to this task, Mr. Davis managed the research and report development for the United States Air Force Systems Command (AFSC) Airspace Master Plan. This document analyzed Air Force Test and Evaluation airspace requirements for the 1990-2000 time frame, and made recommendations to address airspace, environmental, radar and communications support system needs. Mr. Davis has participated in the firm's documentation effort for the FAA Microwave Landing System (MLS) Demonstration Project. His activity included analysis of MLS curved

approach tests conducted in simulators for wide-body aircraft, MLS application to airport congestion problems, and research into certification of MLS avionics.

Immediately prior to joining Booz, Allen, Mr. Davis was a Senior Systems Analyst, and directed research for the U.S. Army/U.S. Air Force airspace study, Project Blue Air. He evaluated the effects of civil (air carrier and general aviation) flight patterns, terminal congestion, and airport design and capacity on civil traffic efficiency, delay patterns and military airspace access. During this project, Mr. Davis led a seven month research effort that included data collection visits to each FAA Regional Office and traffic analyses of most domestic Air Route Traffic Control Centers. In an earlier effort, he evaluated domestic, oceanic, and international air traffic and navigation systems for potential integration into the Air Movement Data Subsystem of the U.S. Air Force AN/FPS-118 Over-the-Horizon Backscatter Radar.

On his last Air Force assignment, Mr. Davis led a 16 person office which established airspace management policy, automated Special Use Airspace scheduling, approach and landing aid standards for the Strategic Air Command. He determined policy on air traffic control services, served as the budget advocate for all operations/airfield construction and supervised interface with the FAA and international air traffic control agencies. Mr. Davis oversaw testing, commissioning and upgrade of the SAC Military Airspace Management System (MASMS).

For six years, Mr. Davis managed the Air Force liaison office to four FAA regional offices. He was responsible for insuring FAA airspace and air traffic support to 75 Air Force flying units over a 19 state area. He negotiated with the FAA to insure that adequate en route and terminal air traffic control services were available, airspace access was assured for vital Air Force missions, appropriate terminal approach aids were installed, and weather services and runway and airfield lighting were adequate to support USAF operations.

Prior to this assignment, Mr. Davis managed US Air Force airspace in Alaska. He negotiated for designation of Special Use Airspace and for essential air traffic services in domestic and oceanic airspace, and published some of the first environmental documentation of low altitude military flight operations. During the early part of his career, Mr. Davis was a pilot, flight instructor and operations staff officer, flying the Boeing KC-135 Jet Tanker in the United States and several overseas theaters.

Mr. Davis published a paper entitled "Airspace Management for the 1990s" in the Proceedings of the 1990 Annual Technical Symposium of the Air Traffic Control Association.

**Affiliations:**

Air Traffic Control Association (ATCA)

**Publications:**

"Airspace Management for the 1990's"

**Name:** TERRY FLETCHER

**Labor Category:** Systems Engineer/Analyst

**Total Years Experience:** 13

**Education:**

B.A., Psychology, University of Virginia, 1977

M.S., Information Management, George Washington University, 1989

**Clearance:** Secret

**Relevant Experience:**

Mr. Fletcher has more than 11 years of U.S. Navy and Air Traffic Control (ATC) experience, including extensive experience with Navy and Marine Corps. air station and shipboard operations and equipment. His experience encompasses analysis of Navy and Marine Corps. air station mission requirements, conduct of feasibility studies and cost-benefit tradeoff analysis to determine needs, requirements, and candidate technologies to meet those requirements. This experience also includes liaison and coordination responsibility between ATC facilities, various Navy field Activities, including NISE East (former NAVELEX Chsn, NAVELEX Portsmouth, NESSEC and NESEA), NISE West, and the Army, Air Force (includes ESC, ACC, 4700 OSS), and Navy. Mr. Fletcher has assisted in the planning and development of NAS Modernization efforts, ensuring the continuity and interoperability of ATC operations and systems between the FAA, Navy, Air Force and Army. He has coordinated with FAA and Service personnel to ensure that ATC operations and system upgrades are compliant with NAS and Federal requirements. Mr. Fletcher has also coordinated the development and installation of ATC systems, communications equipment, and associated equipment.

During the past five years, Mr. Fletcher served as Task Leader for the National Airspace (NAS) Modernization Program Cost and Operational Effectiveness Analysis (COEA) for NAVELEX Charleston. Those efforts included evaluation of the OJ-314, FSA-58 and the Integrated Voice Communications and Switching System (IVCSS) to determine their capability to meet the requirements detailed in the NAS Plan Joint Operational Requirements Document (JSORD). Analysis included system performance, reliability and maintainability, cost feasibility, and interoperability with FAA systems. A requirements matrix was prepared for each system analyzed and the advantages/disadvantages of the various alternatives were detailed. Other NAS Modernization efforts included conducting site surveys for the purpose of identifying the facilities, communications and ECS systems, and associated configurations at various Naval Air Stations ATC facilities.

Mr. Fletcher also leads the Caribbean Regional Operations Center (CARIBROC) Communications System Upgrade efforts for NAVAIR. Those tasks included the identification of a configuration to support placement of HF radios at AAWC to support CARIBROC HF requirements, identifying connectivity alternatives for providing CARIBROC with access to sensor data and communications assets located at Punta Salinas and Pico del Este using a NAVNET node to be located on Roosevelt Roads. The former efforts include analyzing various equipments such as pre/post-selectors, passive couplers, and transmit and receive antennas to support HF communications in a very space limited and electrically congested environment; identifying both the operations requirements of CARIBROC and the chosen equipment characteristics to ECAC for validation in their model; and supporting the site approval process. Mr. Fletcher conducted site surveys and identified existing and planned connectivity, current and planned equipment locations, interface characteristics, demarcation points, and any associated connectivity issues; conducted cost-tradeoff analysis of candidate configurations; and recommended an approach. He also performs network analyses to ensure that remote sensor data and communications circuits are optimally exchanged between CARIBROC and remote locations. Analyses include examination of transmission media including

cost benefit trade-offs between SATCOM, microwave, fiber optic, and copper cable to provide required connectivity. He identified both existing and Upgrade interface requirements between internal CARIBROC subsystems, including communications, PDS, and ARSR-4; and between CARIBROC and external sensors/networks; and identified and analyzed subsystem integration and transition issues. These efforts include identifying and analyzing candidate radio, switching, remote control/monitoring, and multiplexer systems to support CARIBROC communications requirements.

Mr. Fletcher also has over two years of experience with a private microwave communications company. His experience with that company included satellite earth station engineering; conducting site surveys that included RFI measurements (and associated analysis), SATCOM antenna siting, and identifying cable runs and interfaces with existing site assets. His efforts also include frequency coordination and interface with common carriers and the FCC.

**Name:** MARY C. FLOWER LEMASTER

**Labor Category:** Junior Systems Engineer/Analyst

**Total Years Experience:** 5

**Education:**

B.S., Electrical Engineering, Ohio Northern University, 1988

**Clearance:** Secret

**Relevant Experience:**

Ms. Flower-LeMaster provides technical and analytical support to NAVAIRSYSCOM (PMA213). She provides systems engineering and program management support for various shore based air traffic control and radar-related systems acquisitions.

*Booz-Allen and Hamilton, Inc., 7/90 to Present.*

Provide technical and analytical support to NAVAIRSYSCOM (PMA213). Provide systems engineering and program management support for various shore based air traffic control and radar-related systems acquisition. These systems include the Caribbean Regional Operations Center (CARIBROC (formerly JARCC)), Data Links, Long Range Surveillance Radars (ARSR-4), RBD/Modems, and ATC Radars (ASR-9).

Responsible for data tracking of contract deliverables for the CARIBROC MTRACS contract. Participate in contract technical reviews, design reviews, technical interchange meetings, and requirements reviews to ensure that the technical requirements are being met throughout all design phases. Reviewed interface requirements and impacts of ACDS Data Link processing on the MTRACS program. These analyses include reviewing OPSEPCs for Link-11, Link-4A, and Link-16. Performed engineering analysis on the RBD/Modems interface documentation submitted by the contract for MTRACS. In addition, perform analysis and evaluation of contractor submitted ECP's. Provide review and recommendations on the CARIBROC MTRACS software documentation in accordance with DOD-STD-2167A.

*Loral Defense System, 7/88 to 7/90.*

Provided technical engineering for aircraft weapon systems and air traffic control related system equipment including fighter aircraft flight control/flight simulation programs. Experience include systems analysis, software development, and system engineering of production system. Responsibilities include task leader of other programmers developing real-time software applications. Efforts included software design, coding, test planning, and analyzing hardware/software problems related to the aircraft Central Processor. Tested and verified software performance in accordance with the actual radar performance. Generated Program Performance Specifications documenting the developed software.

**Employment History:**

July 1988 to July 1990  
July 1990 to Present

Loral Defense System  
Booz-Allen & Hamilton, Inc.

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**Contract N00612-91-D8001**

**Name: BOB HAWLEY**

**Labor Category: Senior Scientist/Engineer**

**Total Years Experience: 25**

**Education:**

B.S., Economics, 1965

M.S., International Relations, 1983

**Clearance: Secret**

**Relevant Experience:**

Mr. Hawley has more than 25 years of professional experience in the field of aviation. His fields of specialization include air traffic control, flight standards policy development, aviation safety, fixed- and rotary-wing aircraft operations, heliport/vertiport design, Microwave Landing Systems (MLS), LORAN-C, Satellite Navigation Systems, airport capacity enhancement, simulation/simulator systems analysis, benefit cost analysis, and air traffic/airports/operations interface. Mr. Hawley is a licensed fixed- and rotary-wing instrument pilot and air traffic controller.

Mr. Hawley is currently Program Manager of the FAA's MLS Program Office Technical Support Program, the Air Traffic Controller Human Factors Handbook Development Program, and the Navy's Medium Lift Replacement Helicopter Program. In addition to his program management duties, he is Technical Representative to the FAA/Industry MLS Task Force Advanced Procedures and Avionics Working Groups, the RTCA GNSS Task Force, and Special Committees 166 and 171 addressing communications, navigation, and surveillance requirements in the year 2015 and MLS area navigation performance requirements, respectively. Mr. Hawley served as chief technical and economic advisor to the MLS User Financial Analysis benefit cost study. He participated in the FAA's MLS Demonstration Program and developed the theoretical basis for precision approach reduced minima using MLS.

Prior to joining Booz•Allen, Mr. Hawley was employed by Systems Control Technology as a Senior Systems Engineer. He served as Technical Task Leader for a number of MLS Flight Technical Projects, represented the FAA as a pilot, technical performance evaluator, and program evaluator for wide-body curved approach simulations (B-747, MD-11); was a key member of the NASA Ames ATC simulation team; coordinated the MLS alternatives analyses; and was a member of the FAA-sanctioned Synthetic Vision Program Steering Committee.

In addition to his program management and technical task duties, Mr. Hawley led several of the FAA's rotor craft research and development support tasks. He participated in every facet of the FAA's civil tilt rotor program, to include authoring the FAA's first Report to Congress on Civil Tiltrotor Implementation, the FAA's Civil Tiltrotor Charter, and participation in the development of the Civil Tiltrotor Program Plan.

**Name:** BEN HOLDEN

**Labor Category:** Systems Engineer/Analyst

**Total Years of Experience:** 11

**Education:**

B.S., Electrical Engineering, Clemson University, 1983

**Clearance:** Secret

**Relevant Experience:**

Present - 12/89      Booz-Allen & Hamilton Inc.

Provide technical and analytical support to NAVAIRSYSCOM (PMA213). For the Fleet Area Control and Surveillance Facilities (FACSFAC) Air Control Tracking System (FACTS) 3200 Upgrade program, review technical documentation, conduct system engineering analysis to translate user requirements into qualitative and quantitative sets of technical requirements, and evaluate and monitor the development of the program. Additionally, assess the sufficiency of the Test and Evaluation activities on the FACTS 3200 Upgrade program.

Analyze current FACSFAC program problems and security issues, research available and future technology, generate and examine alternate solutions, and prepare recommendations. In relation to DoD/Navy airspace management, review and analyze operational requirements and prepare impact assessments concerning the FACSFAC program.

For the FACTS Scheduling System (FACSKED), perform system engineering to analyze and translate user requirements into qualitative and quantitative sets of technical requirements, prepare draft specification, analyze current problems, and conduct investigations of alternate technologies.

Participate in contractor reviews and provide independent evaluation of contract deliverables for the Integrated Voice Communications Switching System (IVCSS) program. Additionally, provide data tracking and configuration status accounting, as well as monitor the program's Test and Evaluation activities.

For the Caribbean Regional Operations Center (CARIBROC) Communication Upgrade program, provide engineering communication support by reviewing and analyzing potential electromagnetic compatibility (EMI/EMC) problems. Additionally, analyze current NAALS problems, research future technologies, conduct investigations of communication technologies, and analyze Test and Evaluation activities.

Performed systems engineering and management support for the Whidbey Island Radar and Communication Upgrade, and the Atlantic Fleet Weapons Training Facility Upgrade; conducted technology investigations and requirements analysis for the NOVA 3/12 and the OE-273 programs; and prepared work statements, installation schedules, and implementation plans for the FAA Modem Replacement program.

For NAVELEXCEN Charleston, performed a technical and cost analysis concerning Satellite communication installation and radar siting requirements. Designated as a technical advisor by the FAA and the General Accounting Office, to support the FAA and GAO in evaluating the technical and cost proposals submitted by Bendix for MLS. This effort involved analyzing the technical proposals and cost data from the three companies and determining the legitimacy of the protestor's complaints.



12/89 - 12/83

IIT Research Institute

Managed, coordinated, and planned the implementation of several communication and radar systems, and performed analysis of existing and future systems. Provided engineering and management support on the following projects: Over The Horizon Backscatter Radar (OTHB), Strategic Defense Initiative (SDI), Digital European Backbone (DEB), DSCS III Satellite System, Hotline Upgrade, DATS, KANTO Plains Upgrade, Multiple Satellite System Program (MSSP), and SAC Backyard Training. For the OTHB Radar Program, responsible for the design and implementation of the communication system. For SDI, performed analysis of various system requirements concerning the phase array ground based radar (GBR) and the Space Based Radar (SBR). This included determining the effects on navigational radar systems. For DEB, responsible for the design and integration of the data links. For the DSCS III Satellite System, responsibilities included design of the data links, footpath coverage, and monitoring of DSCS satellite usage. For the Hotline Upgrade, performed analysis to identify the frequencies on which the data link could operate. For MSSP, responsible for determining the feasibility of the MSSP system and determining the required changes.

### **Employment History:**

December 1989 to Present

Booz·Allen & Hamilton, Inc.

December 1983 to December 1989

IIT Research Institute

OK

**Contract N00612-91-D8001**

**Name:** HELEN HOLMAN

**Labor Category:** Technical Assistant

**Education:**

High School graduate, 1951

**Relevant Experience:**

*BOOZ-ALLEN & HAMILTON INC. 7/74 to Present*

Ms. Holman is currently providing word processing support (Word Perfect 5.1) to the Navigation Systems Practice that involves the production of technical reports, proposals, correspondence, RIDs, Statements of Work, system specifications, mailing lists, and technical manuals. She compiles and maintains daily databases of contract deliverables, documents, and resume files. She is responsible for compiling data to be included in the SOW, Specification, TMCR, and Contracts Deliverable Requirements List (CDRL) packages for client programs, ensuring that all data is accurate and complete from the first draft to final deliverable.

Previously, she developed the procedure for automating the CDRL Form 1423 and was involved in the effort to provide a PC-based CDRL tracking program. Ms. Holman serves as primary point-of-contact for telecommunications and conversion of program data. She also provides support for the production of Classified material.

Previously, Ms. Holman performed as Supervisor of a Wang Word Processing Center for the Practice, where she performed administrative and production duties; i.e., she scheduled work, prepared weekly billability reports, assisted remote users, and maintained the filing data base. In addition, she successfully performed document conversions using software packages such as ASCII, MacLink Plus, Multimate, and WordPerfect 5.0 and 5.1.

Prior to her word processing role, Ms. Holman was secretary to two principals. Her responsibilities included handling all administrative/secretarial duties, and providing engineering staff support.

**Employment History:**

July 1974 to Present

Booz-Allen & Hamilton, Inc.

**Name: ROBERT L. HUMBERTSON**

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**Contract N00612-91-D8001**

**Labor Category:** Senior Systems Engineer/Analyst

**Education:**

B.A.S., Business/ATC Facility Management, 1981  
M.S., Business Management, 1985

**Clearance:** Secret

**Relevant Experience:**

Mr. Humbertson has over 23 years of professional experience, with particular expertise in ATC, airspace management and design, human factors design, airspace and airfield capacity analysis, TERPS, equipment siting, equipment operational flight test procedures, and facility operational evaluation criteria. Throughout his military career, Mr. Humbertson held full facility ATC qualifications in numerous IFR, VFR, and mobile ATC facilities in the United States, Italy, Germany, Korea, and other locations worldwide. He also directly managed six different ATC facilities.

*Booz•Allen & Hamilton Inc.* October 1992 to present  
*Associate*

Mr. Humbertson applied ATC operational expertise to review and comment on the usability of text and figures prepared for the FAA's *Human Factors in the Design and Evaluation of Air Traffic Control Systems: A Handbook for FAA User Teams*. He has also performed analyses in support of airspace master planning and defining future equipment requirements for a number of Government clients.

For the U.S. Navy's ATC program manager, Mr. Humbertson is currently leading a study to optimize equipment, navigation, airspace, and ATC capability with respect to the National Airspace System (NAS) ATC modernization requirements. In addition, he is assisting in updating airspace plans for the USAF Air Combat Command and Navy Blue Air II, an analysis of airspace and range requirements for long range planning.

Another recent assignment with particular relevance is Mr. Humbertson's human factors analyses of design criteria for a mobile ATC radar system and a mobile control tower.

For the U.S. Air Force (USAF) Civil Engineering Laboratories, he evaluated keyboard layouts for air traffic count instruments used in conducting traffic analysis in Air Force and Navy control towers. He also performed an air traffic control system analysis of the largest aircraft and weapons test and evaluation center in the United States.

Mr. Humbertson assisted in Geographic Information System (GIS) data collection, data analysis and graphical user interface (GUI) development for the Environmental Planning Division, HQ USAF.

He assisted USAF's Environmental Services Center in Air Installation Compatible Use Zone studies of three of the Air Force's major installations. Earlier, Mr. Humbertson assisted in analysis and development of flight routes for a major flying organization.

Mr. Humbertson conducted data collection, user interface and screen design for an automated airspace management system. Mr. Humbertson also wrote the Environmental Analysis "HELP"

documentation for implementation of that system. This function assists users in the preparation of airspace requirements documents and need statements.

*U.S. Air Force 1972 to September 1992*  
*Various ATC-Related Positions*

Prior to joining Booz•Allen, Mr. Humbertson was a career officer in the U.S. Air Force (USAF). Mr. Humbertson completed his military career as the first Director of Air Traffic Control and Airspace Management for the USAF Special Operations Command. Among his many duties, he was responsible for the operational evaluation criteria for mobile navigation facilities, ensuring flight inspection requirements were met and that strategic alliances were formed. He coordinated with worldwide aviation offices to develop and achieve standardization procedures for Special Operations Aviation Forces when flying in various ATC jurisdictions.

Mr. Humbertson also served as the Executive Officer for the USAF Executive Manager for ATC services, where he was responsible for ATC equipment and training development as well as operational procedures for Air Force ATC facilities. Previously, he served on the Operations and Training staff at the USAF Air Traffic Services Center. Mr. Humbertson was also one of the primary developers of the USAF Aircraft Surge Launch and Recovery program for the USAF.

**Employment History:**

October 1992 to Present  
1972 to September 1992

Booz•Allen & Hamilton, Inc.  
U.S. Air Force

OK  
Contract N00612-91-D8001

**Name:** OZZIE K. HUNTER

**Labor Category:** Systems Engineer/Analyst

**Total Years Experience:** 13

**Education:**

B.S., Electronic and Industrial Engineering, Norfolk State University, 1985  
Microwave, Tropo Communications Systems Certified, U.S. Army, 1981

**Clearance:** Secret

**Relevant Experience:**

*Present - 6/89                      Booz-Allen & Hamilton Inc.*

Provide technical and analytical support to NAVAIRSYSCOM (PMA213) on the procurement, research, analysis, and testing and evaluation (T&E) of Navy Communications Systems. These efforts include identifying the operational requirements of the Caribbean Regional Operations Center (CARIBROC); preparing specifications, work statements, and implementation plans; and analyzing various equipments such as pre/post-selectors, passive couplers, and transmit and receive antennas to support HF, UHF, and VHF communications. In addition, review contractor test plans, specifications, procedures, and test documentation for compliance with Navy contractual requirements; conduct site surveys; identify existing and planned connectivity and equipment locations, interface characteristics, demarcation points, and any associated connectivity issues; perform CDRL tracking; and review hardware and software contract deliverables.

Researched available recorder systems and Fiber Optic systems, and examined alternative solutions to communications problems of the CARIBROC Communications Upgrade. Conducted technology investigation on recorder/reproducer systems and provided recommendations on requisite systems for the Communications Upgrade. Conducted cost trade-off analysis of various communications systems to include Fiber Optic, landline, microwaves, SATCOM, and recorder systems; and recommended approaches and solutions. Performed network analyses to ensure that remote sensor data and communications circuits are optimally exchanged between CARIBROC and remote locations. Identified both existing and Upgrade interface requirements between internal CARIBROC subsystems (including communications, PDS, and ARSR-4) and external sensors/networks, and identified and analyzed subsystem integration and transition issues. These efforts included identifying and analyzing candidate radio, switching, remote control/monitoring, and multiplexer systems to support CARIBROC communications requirements.

*06/89 - 3/88                      Bendix Field Engineering Corp.*

Performed system design, installation, and testing for a number of communications systems including microwave communications and other point-to-point systems. Toward these efforts, prepared BESEPs for the Navy to define installation details for facility upgrades. These efforts frequently involved visiting sites as part of a site survey team, gathering information on existing equipment installations and configurations, defining facility requirements for new equipment, and preparing textual descriptions and drawings for inclusion in the BESEPs. These efforts were primarily in support of the ROTHRR Surveillance Communication System. In addition, developed test plans and procedures, and conducted field certification testing for a variety of communication systems.

3/88 - 6/86

*Tracor Applied Sciences, Inc.*

Performed engineering design, integration, and test and evaluation of communication systems and equipment including: the KG-84, GSC-39, GSC-52, FRC-158, FRC-173, FCC-98, FCC-99, and DRAMA. For the KG-84 Upgrade Program, prepared installation design plans and BESEPs. Additionally, participated in and served as a team member for the Test and Evaluation Program (TEP). Efforts on the satellite and Microwave Communication Systems were primarily focused on test and evaluation. This required planning for field test at various sites, and scheduling equipment and resources for conducting the certification tests. Prepared written reports of the test results.

6/86 - 11/84

*Superior Engineering and Electronics Co.*

As an engineer/technician for communications equipment, performed testing, troubleshooting, and repair of HF and VHF communications equipment. Additionally, performed periodic calibration of these and other equipment.

**Employment History:**

June 1989 to Present

March 1988 to June 1989

June 1986 to March 1988

November 1984 to June 1986

Booz-Allen & Hamilton, Inc.

Bendix Field Engineering Corp.

Tracor Applied Sciences, Inc.

Superior Engineering and Electronics Co.

**Name:** ANGELA D. JAMES

**Labor Category:** Project Analyst

**Total Years Experience:** 5

**Education:**

B.S., Psychology, Howard University, 1986

**Clearance:** Secret

**Relevant Experience:**

Developed and implemented manual and automated systems to facilitate engineering program planning and management. Reviewed project costs sheets for verification of the accuracy of charges posted to each task, monthly. Collects, verifies and organizes data received from subordinates to prepare documentation, briefings, reports etc. in accordance with guidelines and procedures set forth by Program Manager and/or task leaders.

Provided program planning and management support to the NISE East contract. Responsibilities included distributing and tracking all contract deliverables; generating graphics for program briefs, reports and technical procurement packages; preparing initial draft material for inclusion into final reports and/or deliverables; reviewing documents prior to final submission; coordinating document production; and performing computational/statistical analysis from collected data, as well as preparing Cost Proposals, Statements of Work (SOWs) and Management Work Authorizations (MWAs). Created and utilized a database and spreadsheets to prepare manpower planning sheets. Coordinated and assisted in the revision of the Naval Shore Criteria Manual (SECM), as well as performed research and revised the following subsections to the "Related Issues" section of this manual: systems acquisition (major acquisition milestones and phases), Base Electronic Systems Engineering Plans (BESEPs), Military Construction (MILCON) projects, and installation of shore electronic equipment (including site criteria, performance testing and site acceptance). Added graphics to the Navy policy on Configuration Status Accounting (CSA) (including information on the Micro Organizational Maintenance Management (MOMMS) and the Configuration Data Management (CDM) programs) subsection to this section of this manual. Presently provides support in the preparation of Engineering Change Proposals (ECPs) and is responsible for tracking ECPs through the Naval Air Systems Command's (NAVAIR) approval process. Provides support and functions as the Manual Coordinator to the Navy Project Blue Air Update II.

Prior to joining Booz-Allen, functioned as Sales Administrator and provided customer support to various power supply manufacturers. Maintained existing accounts and handled customer inquiries and orders, as well as provided quotations. Wrote and administered the Terms and Conditions of Sales Agreement, as well as created Sales Acknowledgment forms and Returned Material Authorization (RMA) forms. Utilized data automation techniques, established and maintained databases for sales acknowledgments and returned material. Prepared financial reports such as weekly sales bookings, weekly shipments, month-end actuals, monthly sales analyses and monthly, quarterly and yearly sales projections. Managed material planning and marketing of new products.

Previously, as a Research Assistant for a Human Factors Engineering (HFE) Consultant firm, worked closely with senior scientists to create and edit user manuals for computer-based training software for ARL, Aberdeen, MD. Logged and analyzed data for use in the evaluation of office

automated software and its associated user manual. Distinguished support tools for Manpower and Personnel Integration (MANPRINT) process flows. Researched and wrote abstracts from technical publications and performed on-line computer searches.



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**Contract N00612-91-D8001**

**Name: CYNTHIA S. KARON**

**Labor Category: Project Analyst**

**Total Years Experience: 15**

**Education:**

M.S., Systems, Systems Management, University of Southern California  
B.A., English/Public Administration, Miami University

**Clearance: Analyst**

**Relevant Experience:**

Ms. Karon has over 15 years' professional experience in management analysis and technical writing/editing. She has special skill in describing engineering management programs and functions for review authorities and readers who lack specific technical background, but who require a general understanding of the subject matter's scope and complexity.

Currently, Ms. Karon serves as Quality Assurance Manager for Booz-Allen's evaluation of GNSS technologies for application to the United Kingdom's precision approach landing requirements. As Quality Assurance Manager, she ensures the responsiveness of all work products and deliverables to contract specifications and requirements. Ms. Karon developed the Team's Quality Assurance Plan and other implementing instructions. She collaborated with a Booz-Allen corporate working group to generate the Firm's first Quality Assurance Operating Procedures. Her participation was to ensure the document's compliance with ISO 9000 series quality assurance specifications and, thus, appropriateness for application to the Firm's international assignments.

Ms. Karon collaborated with a team of technical and functional specialists to provide the FAA's first human factors manual for use by designers of air traffic control systems. As technical editor, she was responsible for the editorial correctness of this 500-page plus volume. Currently, Ms. Karon and the project team are engaged in development of an electronic checklist to facilitate designers' easy access to human factors design principles and practices. Ms. Karon is also preparing a detailed index for the human factors manual, and assisting in the definition of a glossary of human factors engineering terms.

Previously, she managed the efforts of various technical writers, editors, and graphic designers to prepare reports summarizing findings and recommendations derived from the FAA's MLS demonstration program. The products, a 30-page summary report and 300-page project summaries volume, were distributed widely in the United States and internationally.

She collaborates regularly with client organizations to define requirements for and prepare engineering program management documents, including mission need statements, program master plans, and acquisition plans. She has long-term client relationships with organizations responsible for management of US Navy ATC programs and electronic communications programs.

In a previous assignment for a government agency's primary software support activity, Ms. Karon developed a detailed decomposition of the organization's technical and administrative management functions to identify those activities and operations which would most benefit from application of Management Information System (MIS) tools. This project required Ms. Karon to develop detailed interview guides, and direct a staff of four Booz-Allen analysts in extensive interviews with management and working level personnel to obtain information on work procedures and associated

challenges and objectives. This project also involved documentation of activities in narrative- and flow-diagram forms to support application of a Computer-Aided Software Engineering (CASE) tool. The product was a 1200-page plus work breakdown structure (WBS), complete with definition for all WBS elements.

Ms. Karon provides continuing management analysis support to a number of engineering agency clients. During recent years, much of this work has been to facilitate major downsizing and realignment of functions and personnel. She designs and implements work loading studies, to assist clients in defining manpower and facility requirements associated with current and projected taskings. She also prepares all required organization documentation, including mission and function statements, organization structures, and job descriptions.

Before joining Booz-Allen, Ms. Karon was employed by a personnel management consulting firm that specialized in the organizational analysis. She prepared detailed organization and position documentation for a wide range of government clients. Earlier, Ms. Karon was a personnel management specialist for a government agency.

**Employment Record:**

1983 to Present  
1980 to 1983  
1978 to 1980

Booz-Allen & Hamilton, Inc.  
Triton Associates, Inc.  
Naval Ship Research and Development Center

**Affiliations:**

American Management Association

**Name:** STEPHEN M. MAXWELL

**Labor Category:** Junior Systems Engineer/Analyst

**Total Years Experience:** 6

**Education:**

B.S., Electrical Engineering, Auburn University, 1987

**Clearance:** Secret

**Relevant Experience:**

*1990 - Present*

*Booz-Allen & Hamilton Inc.*

Provide technical and analytical support to NAVAIRSYSCOM (PMA213). Provide system engineering and program management support for various ship- and shore-based air traffic control radar and radar-related systems acquisitions. These systems include the AN/SPN-46(V) Automatic Carrier Landing System (ACLS), the AN/SPN-42A & 42T4 (ACLS), the AN/SPN-41/TRN-28 Independent Landing Monitor, the MK16 Mod XX Stable Element, Signature Managed Air Traffic Control and Landing System (SMATCALS), and the AN/UPX-30(V) Central IFF Automatic Identification (CIFF/AutoID) System.

Support PMA213 in drafting of performance specifications, SOW, CDRL's, acquisition packages for AN/SPN-46(V) ACLS, AN/SPN-42A ACLS & 42T4, MK16 Mod XX Stable Element, and AN/UPX-30(V) CIFF/AutoID.

Responsible for the data tracking of contract deliverables for four different AN/SPN-46(V) ACLS contracts. Participate in contractor technical reviews, design reviews, and requirements reviews to ensure that the technical requirements are being met throughout all design phases for the AN/SPN-46(V) and AN/UPX-30(V) CIFF/AutoID. Provide review and recommendations on ACLS, SMATCALS, and CIFF/AutoID technical CDRL documentation submitted by the contractor. In addition, perform analysis and evaluation of contractor submitted ECP's.

Participated as a technical advisor on Navy Technical Evaluation Teams responsible for assessing the technical merits of solicited and unsolicited proposals covering communications, radar, and display/processing systems. These include the AN/SPN-46(V) ACLS, the MK16 Mod XX Stable Element, and the AN/UPX-30(V) CIFF/AutoID.

Compiled a study report defining problems with the APN-154 and APN-202 aircraft radar beacon systems, and defined a plan to increase reliability of these systems in the fleet.

Prepared Software Life-Cycle Cost Analysis/Estimation for the Doctrine Processor Rehost effort for the AN/UPX-30(V). Estimation was used to help determine the most economical way to accomplish the effort and cut contractor expenses.

Provided engineering and program support to the FAA as a Senior Engineer on the Precision Runway Monitor (PRM) program. For this effort, assisted in the development of the contract procurement request and the statement of work.

1/88 - 5/90

*Vitro Corporation*

Provided technical engineering for Weapons Systems and shipboard air traffic control related system equipment. Experiences include systems analysis, systems development and testing of R&D and production systems. Responsibilities included project engineering and task leader for efforts involving test planning, developing test cases, and preparing test schedules. As such, lead test engineering test team, conducted system hardware and software testing. Systems and equipment included TOMAHAWK Weapons System, Communication Control Systems, Phased Array Long Range Surveillance Radars, Data Links, and Remote Monitoring and Control systems. Tested and verified the performance of the Launch and track Control Group software and associated interfaces. Analyzed Communications Control interfaces, including the fleet Broadcast System and the NTDS Link-11 Data Link. Performed communications system simulation to the Track Control Group, analyzed primary and secondary Identification Friend or Foe (IFF) radar data interfaces. Conducted analyses of Phased Array Radar data and Long Range Surveillance Radar data to evaluate performance and interface compatibilities. Performed analysis and evaluations of Remote Monitoring and Control Systems. Served as the lead test engineer and conducted system level tests on shipboard systems and equipment.

**Employment History:**

1990 to Present  
1988 to 1990

Booz-Allen & Hamilton, Inc.  
Vitro Corporation

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**Contract N00612-91-D8001**

**Name: DEBRA MCDOWELL**

**Labor Category: Technical Assistant**

**Total Years of Experience: 10**

**Education:**

Certificate, Katherine Gibbs School, Rockville, MD, 1984

**Relevant Experience:**

Ms. McDowell has held several positions providing executive-level management support. She has extensive knowledge of both the Macintosh system, as well as DOS supported systems. She has assisted in the preparation of program briefs and reports.

Ms. McDowell has over 10 years of professional experience. She is currently providing administrative support to the USAF ACC Master Plan. In this capacity, Ms. McDowell assists in the preparation of program briefs, reports and technical procurement packages by providing data entry and generating graphics.

Previously, Ms. McDowell provided administrative support to the Director of Human Resources where she processed US immigration applications and renewals, as well as functioned as the liaison between employees and the immigration legal counsel. She was also responsible for updating and controlling the distribution of policy manuals. She also compiled data for EEO reports.

Prior to her employment with Booz-Allen, Ms. McDowell provided administrative support to the Vice President of Operations. She prepared staff reports, scheduled meetings and conferences and maintained the department's calendar.

Prior to this position, Ms. McDowell worked as a Research/Administrative Assistant where she was responsible for researching, developing, and preparing strategic marketing documents.

Ms. McDowell has also functioned as the Administrative Secretary to the Vice President of Merchandising handling payroll and benefits. She also executed administrative tasks.

In addition to the above, Ms. McDowell held a secretarial position where she was responsible for typing, filing and binding appraisal reports. She also controlled the supply inventory and prepared invoices.

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**Contract N00612-91-D8001**

**Name: JEFFREY E. MEYERS**

**Labor Category:** Computer Systems Analyst

**Total Years Experience:** 5.75

**Education:**

B.S., Electronic Engineering, Monmouth College, May 1988  
Programming in C, Fall 1991  
Programming in C++, Fall 1993

**Clearance:** Secret

**Relevant Experience:**

Over five years experience in the design and development of information management systems related to command and control systems.

- Developed an Army Force Structure Management System for the Program Manager of the Advanced Field Artillery Tactical Data Systems. The tool managed multiple force structures, equipment fielding and budget requirements across all echelons of command
- Developed a command, control and communication model of the Advanced Field Artillery Tactical Data System. The model uses army doctrine for mission thread and network architecture definitions. The model employs a combat network radio and a link layer protocol model.
- Developed the System for Performance Measurement. The application imported NAALS maintenance and CDM equipment configuration data to produce three dimensional graphs of Availability, Mean Time To Repair and Mean Time Between Failure.
- Developed the Automated Airspace Management System. The system provided a document repository and automated several Air Force forms.
- Developed an Order Tracking System for the program manager of Common Hardware and Software. The application aided buyers in creating orders, obtaining the status of orders and funds, and identifying new products and their projected ECP approval dates.
- Developed a Generic Installation program for all MOMMS application/data exchanges. The program provides a means to quickly assemble an application across several diskettes. The application utilizes compression algorithms and text files to identify installation parameters.
- Provided Post Deployment Software Support on the AN/ALQ-156(V). The support required the evaluation of software trouble reports. Identifying the error as hardware or software. If the error was a software error, design, code and test a solution. Upon correction, generate the proper ECPs and distribute the new software on EPROMs.
- Developing a Geographic Information System to support the management of airspace at Marine Corps Base Camp Pendleton. The system will incorporate real-time radar and scheduling data to provide a real-time status of airspace.

- Performed System Engineering analysis to verify power, weight and size requirements of the Advanced Field Artillery Tactical Data Systems in the Standard Integrated Command Post Shelters.
- Evaluated the communications architecture for the Advanced Field Artillery Tactical Data Systems via modeling and simulation data. Based on data, designed and tested alternative architectures.
- Developed and reviewed documents in accordance with government standard 2167A.
- Performed an analysis of database management technologies in conjunction with technical descriptions of major relation database management system products.

**Computer Experience:**

IBM PC/XT/AT, Macintosh PC, DEC  $\mu$ Vax 3100, Sun Workstation

**Software Experience:**

Clipper 5.01, Flipper 6, SilverClip, Borland C/C++ 4.0, Assembly, MapInfo, Interleaf, Windows 3.1, Excel 4.0, Word 6.0, Designer 4.0, ProComm for Windows

**Name:** ANDREW A. NELSON

**Labor Category:** Systems Engineer/Analyst

**Total Years Experience:** 10

**Education:**

B.S., Electrical Engineering, 1985

M.S. Electrical Engineering, Candidate

**Relevant Experience:**

Mr. Nelson has a strong background in advanced air traffic control and airborne avionics with specialisation in navigation and landing systems. His experience includes over ten years of involvement with hardware, software and other technical and management efforts covering communication systems, MLS, ILS, GPS, DME, VORTAC, and INS. He has hands-on skills in computer operations and programming including IBM 4341/CMS, DEC VAX/VMS, Macintosh and various PCs using Fortran, Basic, Pascal, and Assembler. Mr. Nelson also has extensive experience in test and evaluation of aviation systems, including ground, space, and airborne based elements. This includes all facets of test, evaluation and certification of hardware, interface, and software systems elements to various standards including RTCA DO-160B/C, RTCA DO-178A/B, and various military standards.

Mr. Nelson currently manages and executes tasks for the United Kingdom Civil Aviation Authority (CAA) National Air Traffic Services (NATS), Navigation Directorate. These efforts are focused on the evaluation of satellite based technologies for precision approach and landing for Category III operations. These efforts include airborne, space, and ground segment test and evaluation of a variety of equipments. Specific activities include planning and execution of flight tests followed by evaluation of collected data versus pre-determined evaluation criteria. Follow up documentation and associated efforts are also executed by Mr. Nelson and staff under his management. Other areas of tasking include jamming and spoofing tests of GPS avionics in the laboratory and field environment. Theroetical activities under Mr. Nelson's purview include GPS receiver digital signal processing, satellite systems simulation, and systems engineering evaluations of Category III architecturs including the underlying algorithmic theory such as carrier phase differential GPS and other kinematic or interrfermoetric techniques.

Mr. Nelson also is responsible for studies to determine other GPS architectures applicability to less stringent categories of aircraft approach such as Category I and non-precision approach operations. These efforts are primarily for US DoD clients and focus on potential issues with wide area DGPS applications.

Previously, Mr. Nelson provided technical oversight for the development of the Canadian Marconi CMLSA Receiver (CMA-2000). His efforts included back azimuth switching and GPS ranging algorithm development, systems operational analysis and overall management of the RF, Reliability, Packaging, Software, and Cost team. Some of the specific tasks included the laboratory and flight test planning and execution for the certification of the receiver to TSO requirements. These efforts included the laboratory tests of the receiver for performance (RTCA DO-177 and DO-198), environmental considerations (RTCA DO-160B), software to flight safety critical levels (RTCA DO-178A), and reliability verification testing (US military standards for 5000 hour MTBF). Flight tests included three sites, three ground stations, and three aircraft types.



Since 1989, Mr. Nelson has served as a United States Technical Advisor to the ICAO All Weather Operations Panel. In this role, he has provided support to address issues concerning MLS data link, DME/P, and the use of satellite-based aids for precision approach. He was one of the principal authors of the MLS RNAV curved approach procedure transmitted database and drafted ICAO Annex 10 SARPS and guidance material for this concept. Most recently he has actively supported AWOP Task A (Future Technologies) and Task B (RNP) Subgroups. Task A is focusing on the evaluation of future technologies for precision approach and landing such as GPS and a future GNSS architecture. For Task B he has provided input on the tunnel-in-space concept and issues on its implementation in the international airspace environment including: certification issues, technical issues, and detailed technical comments on risk allocation methodologies proposed.

Prior, to the above experience, Mr. Nelson was responsible for the installation and testing of the GPS User Equipment Suite utilised for precise positioning of missile tracking thips. This effort involved the preparation of plans, management of installation teams and overall testing, including analysis of kalman filter and inertial navigation integration techniques used for precise positioning.

Mr. Nelson also designed and developed the add-on low pass filter module for the Cape Canveral Air Force Station Launch Pad Lightning Warning System (LPLWS). The LPLWS was upgraded based on Mr. Nelson's designs. The system was then completely tested via test plans and procedures and certified as a launch support system.

Prior to this effort Mr. Nelson designed and integrated into the Cape Canaveral missile test range a new range safety display sytstem which incorporated high resolution graphics displays and display technologies normally used in air traffic control centers. These systems included worldwide multiple surveillance and telemetry sources which were combined with ATC data from the Miami ATC center to produce multi-color status displays. The information from these sources was combined to produce a tactical situation display which was then used for a determination to launch a missile and/or destruct the missile prior to orbital insertion. The specific work included software algorithm development, hardware configuration, architecture design, test and systems evaluations, and human factors design and evaluations.

Mr. Nelson also was a member of the design and evaluation team for the NASA AMES/Ohio University differential GPS system designed for the the helicopter community (ocean oil platform operations). Mr. Nelson researched selective availability algorithms and models to defeat the effects of SA in real time. He also provided support for the flight test data reduction processing and report generation.

#### **Employment History:**

1990 to Present	Booz-Allen & Hamilton
1988 to 1990	MITRE Corporation
1985 to 1988	Pan American World Services
1981 to 1985	Ohio University Avionics Engineering Center

#### **Affiliations:**

Institute of Electrical and Electronic Engineers  
American Institute of Aeronautics and Astronautics  
Royal Institute of Navigation

#### **Publications:**

**Name:** MARK S. PAESE

**Labor Category:** Systems Engineer/Analyst

**Total Years Experience:** 13

**Education:**

B.S., Mathematics/Physics, University of Pittsburgh, 1982

M.S., Information Technology, Johns Hopkins University, 1986

**Clearance:** Secret

**Relevant Experience:**

Specific experience in performing technical assessments, systems performance analyses, systems integration planning, specification development, test and evaluation, and communication systems concept formulation/design/analysis for Navy Air Traffic Control & Landing Systems (ATC&LS) Programs.

*1985 - Present*

*Booz, Allen & Hamilton Inc.*

Provides engineering, technical and analytical support to PMA213 for NAALS Programs. Provide technical experience in radar, communications, processing/display systems, requirements definition, systems acquisition, development, planning and production. Direct, applicable experience in the preparation of specifications, SOW, CDRL, acquisition packages, test plans and procedures, and installation schedules for NAS Fallon RASS, CARIBROC Communications, MTRACS and 3-D radar, IVCSS, FACSFAC, FACTS 3200 Upgrade, RBD, Fiber Optics Intersite System, ECS, AN/FSY-1, RD-379/390 Replacement, AN/SPN-42A(V), and AN/SPN-46(V).

Provide support in the development and preparation of DOD 5000.2 acquisition documentation for the Combat Identification/Cooperative Aircraft Identification (CI/CAI), formerly the Next Generation IFF (NGIFF) Program.

Participated as a technical advisor on several Navy Technical Evaluation Teams responsible for assessing the technical merits of solicited and unsolicited proposals covering communications, radar, and display/processing systems. These include the CARIBROC Three Dimensional Air Surveillance System (TASS), the Range Airspace Surveillance System (RASS), the CARIBROC Multi Input Tracking and Control System (MTRACS), the Integrated Voice Communications Switching System (IVCSS), and the CARIBROC Communications System.

Responsible for the data tracking and configuration control of the CARIBROC MTRACS and Communications System Upgrades. Participate in contractor technical reviews, design reviews, and requirements reviews to ensure technical requirements are being met throughout all design phases. Provide review and recommendations on all CARIBROC software CDRL documentation submitted by the contractor. In addition, perform analysis and evaluation of contractor submitted ECP's.

Conduct independent validation and verification of the FACTS 3200 Upgrade software. This effort includes the review and evaluation of NESEA and NAWC generated software and documentation for compliance with the baseline specification.

Conducted the Communications Cost and Operational Effectiveness Analysis (COEA) for the NAS Modernization Program. Conducted site surveys at various Navy ATC facilities assessing equipment commonality between DOD and the FAA, and analyzing FAA equipment capabilities against mission requirements.

Prepared the Technical Analysis/Cost Estimate (TA/CE) for the CARIBROC Upgrade Program during the requirements analysis phase. The TA/CE was used as the basis for funding and planning of the three separate subsystems for CARIBROC.

Developed a test plan and procedures for the identification of communications and radar coverage for NAS Fallon Airspace. Generated a final report on the results of the study and prepared an implementation plan for NAS Fallon. The report identified the requirements and recommendations for the acquisition of communications and radar assets.

Conducted reviews of current software packages, (i.e., MCSAM, DAES and PMSS) and provided demonstrations and briefings for the improvement of the Management Information System to support the tracking of acquisition management documentation and funding. Provided logistics support in the development of the RASS, CARIBROC 3-D radar, and IVCSS programs for total logistics life-cycle support during the acquisition process.

*1982 - 1985*

*Westinghouse Electric Corporation*

Prepared specifications, statements of work, data requirements, installation schedules, and interface control documents for the TPS-63, TPS-43, TPS-70, and TPS-72 surveillance radars and the Royal Saudi Air Defense System. The FMS contract for the Royal Saudi Air Force consisted of ground-based tactical, 3-D S-Band radars; satellite earth stations; Line-of-Site communications; TROPO, UHF/VHF radios, HF communications, TACAN, and communication switching systems (VOCOM). Developed a Mode 4 IFF algorithm and firmware implementation into the TPS-70 radar processor and developed interface specifications. Conducted engineering cost estimates for the TPS-43 radar modification kits for the Royal Saudi Air Force and the TPS-70 radar, and provided life cycle logistics support recommendations, including analysis in the areas of maintenance automation through BIT/BITE, and operator/maintenance training manuals/videos.

**Employment History:**

1985 to Present  
1982 to 1985

Booz-Allen & Hamilton, Inc.  
Westinghouse Electric Corporation

8 yrs exp?  
Contract N00612-91-D8001

**Name:** DANIEL R. RICHARDS

**Labor Category:** Logistics Engineer/Analyst

**Total Years Experience:** 20

**Education:**

B.S., Electrical Engineering, University of Texas at Arlington, 1980.  
M.A., Engineering Administration George Washington University, 1987.

**Clearance:** Secret

**Relevant Experience:**

Past five years experience in the joint service Caribbean Regional Operational Center (CARIBROC) providing a full range of ILS services for command, control, communications and computer systems in support of the Assistant Program Manager for Logistics (APML). Reviewed and commented on government documents to ensure compliance with current instructions. Developed draft ILS planning documents such as ILSP, ULSS, LRFP, and Program Support Data (PSD) requirements. Maintained PSD resident in the PSD Automated Reporting and Tracking System (PARTS) program. Developed alternative life cycle support scenarios along with the detailed requirements to field the government selected option. Developed and maintained ILS schedules.

Provided ILS acquisition support of the Caribbean Regional Operations Center (CARIBROC), the Fleet Area Control and Surveillance Facility (FACSFAC), and the National Airspace System (NAS). Lead logistics engineer, directing 5 logisticians in all elements of ILS for Air Traffic Control systems. Coordinated and managed logistics functions in support of the Assistant Program Manager for Logistics (APML) for the Naval Air System Command's Logistics Management Division (AIR-41044). Provided direct support by preparing logistics acquisition documents such as Integrated Logistic Support Detail Specifications (ILSDS) including tailored Logistic Support Analyses (LSA) requirements. Produced Logistics Requirements Funding Plan (LRFP) requirements, Airtasks, Work Unit Assignments, Integrated Logistic Support Plans (ILSP) and management milestone charts. Maintained an automated CDRL tracking program for monitoring and updating logistic CDRL deliverables on two major Navy contracts procuring CARIBROC equipment. Reviewed, commented and recommended corrections to contractor provided documentation such as Integrated Support Plans (ISP), Logistics Support Analysis (LSA) Plans, Computer Resources Life Cycle Management Plans (CRLCMP), Supportability Assessment Plans, and Contractor Engineering and Technical Services (CETS) Plans.

For the NAS, monitored DoD requirements reviewing and providing comments on the Joint ILSP, the generic maintenance concept, and the Cost and Operational Effectiveness Analyses (COEA). Participated as an active member of the government Advanced Automation System (AAS) team, attending meetings as the NAVAIRSYSCOM representative for the Maintenance Concept Subcommittee and the DoD Common Console development team.

**Name:** THOMAS SCHUBERT

**Labor Category:** Junior Systems Engineer/Analyst

**Total Years Experience:** 7

**Education:**

B.S., Electrical Engineering, West Virginia University, 1985

**Clearance:** Secret

**Relevant Experience:**

Mr. Schubert has over 7 years of professional systems engineering, test engineering, design analysis. He has applied this experience in the systems development and test and evaluation (T&E) of state-of-the-art systems for highly specialized Government applications. His experience includes performing structured engineering analysis, acquisition support, specification development, design verification, test requirements development, and software and hardware evaluations.

Mr. Schubert's systems engineering experience has been applied to technologies and applications for surveillance systems, communications, data processing, and display systems.

*Booz•Allen & Hamilton, 10/88 - Present*

Mr. Schubert currently supports the Caribbean Regional Operations Center (CARIBROC) upgrade program, primarily in the procurement of the Air Route Surveillance Radar model 4 (ARSR-4), a long range surveillance radar that will be installed at three Navy sites to provide output data to CARIBROC and FACSAC facilities over a digital data link. In addition, he reviews CDRL submittals for the CARIBROC Communications, and Processor and Display Subsystems. His responsibility includes ensuring the ARSR-4 meets all Navy technical requirements. He participates in Interface Control Working Group (ICWG) and Test Plan Working Group (TPWG) meetings. Issues raised and resolved through these meetings include Navy use of the AN/UPX-27 or ATCBI-5 IFF interrogator, message types and formats required by the FACSAC, and definition of unique Navy test requirements. Mr. Schubert participates in Program Management Reviews (PMRs) and Critical Design Reviews (CDRs); reviews Interface Control Documents (ICDs), and test plans and procedures; and performed site surveys at the three Navy ARSR-4 sites. He defined the Navy's analog video requirements for analog outputs to the AN/UPA-59 and Navy display consoles from the ARSR-4. Mr. Schubert developed the draft technical specification for an analog video conversion unit, and assisted the FAA in developing the ARSR-4 AVIU Analog Video interface Unit (AVIU) technical specification and recently participated in the AVIU PDR.

Mr. Schubert supported the Range Airspace Surveillance System (RASS) program for the Strike Warfare Center at NAS Fallon, NV. The RASS consists of three ATC Radars (AN/GPN-27), the AN/UPX-27 IFF interrogator, Radar Beacon Digitizers (RBD), a radar microwave link, and a remote monitoring system. He prepared the technical specification and statement of work to incorporate RFI comments, reviewed the MILCON design documents and drawings, attended various MILCON meetings, and reviewed the microwave communication specification and remote monitoring system documentation.

Mr. Schubert provided engineering support for the AN/FAC-6(V) Fiber Optic Intersite System (FOIS) program, AN/TPX-42 RATCF DAIR, and FACSAC Whidbey Island. For the FOIS, he performed surveys at sites where the system was to be installed to gather site specific data. He developed and prepared the technical specification, statement of work, and contract data requirements list. For the AN/TPX-42, Mr. Schubert developed drawings of the various configurations of the AN/TPX-42 and its interfaces with other Navy and FAA ATC equipment. For FACSAC Whidbey Island, he performed site surveys to determine the optimal locations for

communications sites, which would enable FACSAC Whidbey Island to communicate with its responsible areas.

Mr. Schubert provided engineering support to NAVELEXCEN Charleston for the NAS Modernization Program. He performed site surveys at various Naval Air Stations to identify current equipment configurations and interfaces. This information will be used to determine the equipment that will be modified or replaced as part of the NAS Modernization effort.

Mr. Schubert performed technology assessment of available and future data recorder technology for comparison with the RD-379/390. He analyzed user requirements and developed draft technical specification to replace RD-379/390 data recorders.

*Vitro Corporation, 6/86-10/88*

Mr. Schubert provided systems integration support and radar system analysis for the Tartar Weapons System installed on FFG-7 class ships. He researched system losses and radar characteristics for the Separate Tracking and Illuminating Radar (STIR) and the Combined Antenna System (CAS) radar. Mr. Schubert analyzed the long range surveillance radar AN/SPS-49 for functional interfacing with the FCS MK 92 Radar Tracking System, analyzed the RF components of the track radars employed by the MK 92 Fire Control System, reviewed software documentation for the MK 92 for technical accuracy and compliance with Military Standards, and reviewed Combat System Engineering Change Proposal for impact on the FCS MK 92. He analyzed the tracking filters of the Integrated Automatic Detector Tracker (IADT) AN SYS-2(V)2 and the Combat Direction System (CDS), researched the functional interfacing of the shipboard IFF system with the CDS, analyzed the Link-11 data link for track transfer between ships, and developed preliminary top level designs for a data link system to transfer target data between the CDS and the Close In Weapon System (CIWS).

#### **Employment History:**

October 1988 to Present  
June 1986 to October 1988

Booz-Allen & Hamilton, Inc.  
Vitro Corporation

**Name: FREDERICK SIEMS**

**Contract N00612-91-D8001**

**Labor Category:** Program Manager

**Years Experience:** 22

**Education:**

B.A., Applied Mathematics, John Hopkins University  
M.A., Linguistics, Cornell University

**Clearance:** Secret

**Relevant Experience:**

Mr. Siems has over 22 years of professional experience in aerospace and aeronautical systems design and development, and currently leads the Aeronautical Systems Practice at Booz-Allen & Hamilton. His responsibilities include (1) Programme Manager of the VNTSC Omni Support contract for the CNS, ISE, and ORA functional areas and (2) Department Head for Air Traffic Control Engineering Support to the Naval Air Systems Command and the Naval Electronic Systems Engineering Center (NESEC).

Prior to his current duties, Mr. Siems was responsible for the design and development of command, control, and communications and intelligence (C3I) systems. His focus areas have been military operations analysis and gaming, C3I architecture formulation and investment planning, battle management/C3I modeling and simulation, and developing and fielding C3 decision support systems. His primary clients have included military commands, military service laboratories, and commercial organisations.

Mr. Siems designed and developed an Ocean Surveillance Information System, presently operating at Fleet Ocean Surveillance Information Centres and facilities world-wide. This system correlates and fuses data collected from various sensor sources unit track histories, provides a sophisticated graphical analysis and display capability, and reports intelligence summary information to ashore and afloat command centres.

Mr. Siems defined and designed the Integrated Information Display system (now the Operations Support System) installed in a major Fleet Command Center. This system satisfies requirements for a decision making tool that can correlate and display information on position, readiness, and platform characteristics for naval forces and disseminate tasking to subordinate commands. Primary interfaces to this system include military command and control and intelligence systems.

In support of the Manager of the National Communications System, Mr. Siems managed the development and fielding of the Telecommunications Emergency Decision Support System. This system supports the functions of telecommunications assets status telecommunications assets status evaluation and damage assessment; requirements evaluation and priority determination; and telecommunications assets/resources allocation and reallocation throughout the spectrum of national emergencies.

Before joining Booz-Allen, Mr. Siems was employed at the Naval Research Laboratory, where he was a major contributor to the planning, development, and implementation of U.S. Naval intelligence and command and control systems that are operational worldwide.

**Name:** GUY C. ST. SAUVEUR

**Labor Category:** Senior Scientist/Engineer

**Total Years Experience:** 23

**Education:**

M.S., Applied Management, Lesley College, Cambridge, MA, 1989

B.A., Management, Northwood Institute, Midland, MI, 1981

Advanced Study in Public Policy & Global Strategies, 1990-92

Harvard University, JFK School of Government, Cambridge, MA

Defense Arms & Control Studies, Center for International Study, MIT, Cambridge, MA

**Clearance:** Secret

**Relevant Experience:**

Mr. St.Sauveur has over 23 years experience in air traffic control and airspace management. The majority of his time was spent with offices at the Assistant Secretary of Defense and Assistant Secretary of the Air Force responsible for strategic planning and architecture's reflecting both national and global directions. Primary disciplines utilized were a systems approach to macro-planning environments.

At Booz•Allen & Hamilton, Mr. St.Sauveur is responsible for providing technical and management support to offices within the Departments of Defense and Transportation in areas of air traffic control and landing system. His responsibilities include defining user requirements, developing system requirements, identifying concepts and initiatives for airspace system integration, and advocating support elements for research and planning.

Before joining Booz•Allen, Mr. St.Sauveur was employed with a major defense corporation responsible for the development and production of Airspace Landing and Communication systems. His responsibilities were in the definition and development of national and international markets for the procurement and acquisition of microwave landing systems. His tasks involved defining business strategies, market plans, strategic alliances, export control issues, and government interfaces between industry and the designated government.

Prior to joining commercial industry, Mr. St.Sauveur served as the US Air Force representative to the Office of the Assistant Secretary of Defense for C3I in strategic planning of air traffic and airspace management concepts and initiatives for the 21st century. He initiated and directed the first multiservice panel to begin defining and determining the future focus and role of airspace management for the Department of Defense. He was additionally responsible for defining, advocating and initiating a staffing element to support the Assistant Secretary of the Air Force in international negotiations and research.

Mr. St.Sauveur is a member of the Air Traffic Control Association, Institute of Navigation, and Technology Transfer Society.

Mr. St.Sauveur has published within both the Departments of Defense and Transportation and NATO Advanced Study Institute relating to future air traffic and airspace issues relating to both national and international applications.



OK

**Contract N00612-91-D8001**

**Name: EUGENE A. WELLS**

**Labor Category:** Logistics Engineer/Analyst

**Total Years Experience:** 14

**Education:**

B.S., Mathematics, Sophia University, Tokyo, Japan, 1974  
53 additional hours, Computer Information Systems, Northern Virginia Community College, 1984-1993

**Clearance:** Secret

**Relevant Experience:**

Fourteen years experience with DoD Integrated Logistics Support (ILS), with recent experience providing logistics and program management support to the Logistic Manager for Shore Air Traffic Control (ATC) Systems at NISE East, Charleston, and the Logistics Manager for Fleet Area Control and Surveillance Facilities (FACSFAC) at NISE East, Detachment St. Inigoes. Previously, provided more than four years support to Naval Air Systems Command (NAVAIR) ILS Manager for Shore ATC. Generated draft logistics documentation and program correspondence, and reviewed and commented on logistics deliverables from contractors.

**BOOZ-ALLEN & HAMILTON, INC**

*8/89 to Present*

Currently, Mr. Wells is providing support to NISE East, Detachment St. Inigoes and NISE East, Charleston as a Senior Logistician. In that capacity, Mr. Wells provides systems logistics and program management support to the Logistics Managers for the Fleet Area Control and Surveillance Facilities (FACSFAC) and for other shore-based Air Traffic Control and Landing Systems (ATCLS). In support of those systems, Mr. Wells generates draft logistics documents, including Logistics Requirements and Funding Summaries (LRFS). He has also supported the acquisition of logistics requirements for ATC systems by reviewing and evaluating Contract Data Requirements List (CDRL) line items, such as technical manuals, maintenance plans, spare and repair parts lists and other provisioning documentation, support equipment requirements data, and training materials. His duties have included generation of draft Integrated Logistics Support Detail Specifications (ILSDS), Procurement Requests (PR), Contract Modifications, Integrated Logistics Support Plans (ILSP), Contract Data Requirements Lists, Airtasks, and Work Unit Assignments. Mr. Wells has also been extensively involved with the Engineering Change Proposal approval process, reviewing and providing comments on contractor and Navy Field Activity submissions and generating implementation plans and schedules for change incorporation.

**U.S. NAVY**

*12/52 to 7/89*

Before joining Booz-Allen, Mr. Wells was assigned to the Naval Air Systems Command as a Project Officer for Aircraft Maintenance Trainers for the S-3, H-3, and H-53 aircraft. In that assignment, he was tasked with acquisition of training equipment for establishment of a new training detachment at Naval Air Station, Cecil Field, Florida. While procuring and fielding a \$40 million suite of maintenance trainers for that site, he was the main government contact with the manufacturer. Mr. Wells was responsible for preparing and justifying budgets, providing technical advice to the Contracting Officer, ordering and tracking delivery of all government furnished equipment for the trainers, chairing Preliminary and Critical Design Reviews, and

heading Trainer Acceptance Inspection Teams. All trainers were delivered under the ceiling price of the order, and during negotiations for one trainer he found errors in the contractor's technical data which resulted in more than a five percent savings to the government on the trainer price.

Additionally, Mr. Wells has had duty tours in the Aircraft Intermediate Maintenance Department of several aircraft carriers, as Aircraft Maintenance Officer and Material Control Officer in various aircraft squadrons and as Maintenance Officer on a Fleet Staff.

**Employment History:**

August 1989 to Present  
December 1952 to July 1989

Booz-Allen & Hamilton, Inc.  
United States Navy

**Name:** WILLIAM S. WOJTKOWSKI

**Labor Category:** Senior Scientist/Engineer

**Total Years Experience:** 30

**Education:**

*Scout*  
B.S., ~~Electrical~~ Engineering, March 1973

M.S., Financial Management, U.S. Postgraduate School, December 1973

M.A., Education and Human Development, George Washington University, March 1993

**Clearance:** Secret

**Relevant Experience:**

Twenty-five of Mr. Wojtkowski's 30 years of professional expertise directly relate to Air Traffic Control (ATC) operations and acquisition. He has been both a user and provider of Air Traffic Control Services and has participated in the entire life cycle of ATC system planning, programming, and budgeting requirements of ATC/Command and Control systems. His expertise spans all phases of the acquisition process from exploratory development, technical evaluation, operational testing, and full scale production authority to operational support and eventual system retirements. This experience has been amassed during three maritime aviation squadron assignments, command tours of two aviation shore activities, two tours on the Office of the Chief of Naval Operations (OPNAV) staff, a tour in the Naval Air Systems Command, and as a Booz-Allen senior engineer and program manager on Navy Systems Engineering and Technical Assistance Contracts for the Naval Air Systems Command Air Traffic Control & Landing Systems (ATC&LS) program office (PMA213), the NAVELEXCEN Charleston (now NISE EAST) Air Traffic Control division, and the Naval Electronics Systems Engineering Activity (NESEA) IFF and ATC divisions.

Before joining Booz-Allen & Hamilton in 1990, Mr. Wojtkowski was a United States Navy Captain and a designated Naval Flight Officer with over 26 years of naval service.

At Booz-Allen, Mr. Wojtkowski has continued to add to his extensive expertise with challenging assignments including: program manager and senior engineer for engineering, technical, and analytical support to Naval Air Systems Command PMA213 for the Naval Air Traffic Control, Air Navigation Aids, and Landing Systems (NAALS) Programs. His specific project leader responsibilities have included PMA213 DOD 5000.2 acquisition documentation for the Next Generation IFF Combat Identification/Cooperative Aircraft Identification (CI/CAI) program; the analysis of the Fleet Area Control and Surveillance Facility (FACSFAC) Navy Tactical Data System (NTDS) upgrade to Advanced Combat Direction (ACDS); and the Naval Aviation Navigation Roadmap analyzing Navy and Marine current and future requirements for satellite Ground Positioning Systems (GPS) navigation and landing system applications, Precision Approach Radar (PAR), Instrument Landing Systems (ILS), Microwave Landing Systems (MLS), Automated Carrier Landing Systems (ACLS), and other Navigation Aids. Previously, he coordinated an analysis of the Amphibious Air Traffic Control Direct Altitude and Identity Readout (DAIR) AN/TPX 42(V)12 Test & Evaluation results, authored the Joint DOT/DOD Report to Congress on Special Use Airspace access to the Mid-Atlantic offshore warning areas, supported the Naval Electronics Systems Engineering Activity (NESEA) for the AN/TPX-42 series and Bright Radar Numeric Display System (BRANDS) Configuration Control Boards, and provided technical support for NAVELEXCEN Charleston (now NISE East) on engineering site surveys of Navy and Marine Corps Air Traffic Control (ATC) Facilities. Specific site survey tasks included

data collection and technical analysis of the current ATC Communication Systems, Airport Surveillance Radar (ASR) & PAR, Navigation Aids, FACSAC, Radar Beacon Digitizer/Modems, and Radar Remoting in relation to the FAA National Airspace System (NAS) Upgrade (known currently as the Capital Investment Program).

Mr. Wojtkowski currently leads our Booz-Allen support to the Naval Command, Control, and Ocean Surveillance In-service Engineering East Coast Division related to the fiscal, program and technical planning requirements for disposition of ATC equipment impacted by the Base Closure/Realignment Commission.

In his most recent Navy assignment as Commanding Officer of the Atlantic Fleet Weapons Training Facility (1987-1990), he managed the Navy's most comprehensive live fire fleet battlegroup training, Research and Development, and Operational Test and Evaluation Range during the highest level of fleet usage in the range's history. All naval warfare disciplines were tested through air, surface, and submarine launched missile firings, anti-submarine torpedo firings on an underwater tracking range, air to ground bombing, naval gunfire, amphibious assault, and electronic warfare exercises. This billion dollar facility with its sophisticated instrumentation was essential in the testing of many new Navy systems including AEGIS, NEW THREAT UPGRADE, and the TOMAHAWK. Mr. Wojtkowski provided the leadership and management skills to ensure continued fleet availability of the extensive AFWTF capabilities following hurricane Hugo. Additionally, as a charter framer of the Navy's first comprehensive airspace plan, he was designated the Caribbean Airspace Coordinator with responsibility extending from the Puerto Rican operating areas south to Venezuelan airspace, north to Bermuda, west to the Bahaman's, and east to Antigua. Mr. Wojtkowski initiated the approved framework of required ATC equipment and controller resources required for AFWTF's future designation as an Air Traffic Control Surveillance Facility. He also personally represented the Navy in negotiations with the government of Puerto Rico to establish a shared usage plan to protect against mutual interference between AFWTF radars and the Puerto Rican tethered Aerostat radar.

In a previous Navy assignment (1985-1987) Mr. Wojtkowski was the Financial Management Branch Head in the Office of the Chief of Naval Operations (OPNAV) for the Navy Space, Command and Control, Communications, and Information Systems Directorate. He was responsible for all acquisition documentation including life cycle logistics support, manpower justification, and Navy training plans for over a 100 directorate programs and electronic systems. This required program reviews and zero based budget formulation and budget execution for an annual budget exceeding two and one half billion dollars. Mr. Wojtkowski coordinated all Planning, Programming, and Budgeting System (PPBS) training for the entire OP-094 directorate.

During two other Washington DC tours he was the Executive Assistant and Aide to the Commander Naval Air Systems Command (1969 to 1971), and spent three years (1979 to 1982) as the Program Coordinator on the OPNAV staff for Air Traffic Control Facilities. These responsibilities included requirement validation, priority assignment, and budget defense of all air traffic control equipment, radars, and air navigation aids for all Navy afloat units and 98 Navy and Marine air stations worldwide. During Mr. Wojtkowski's tour as the ATC OPNAV sponsor, the NAALS program achieved several milestones including approval for service use of the AN/TPX-42(V)8 Carrier Air Traffic Control Center Direct Altitude and Identity Readout (CATCC DAIR) processing system; initiation of the AN/TPX-42(V)12 Amphibious Air Traffic Control System (AATC DAIR); production approval for the URN-25 TACAN; a major shore station upgrade with AN/GPN-27 Airport Surveillance Radars (ASRs), FPN-63 Precision Approach Radars (PARs), and upgraded Radar Approach Control Facilities with the AN/TPX-42(V)10 (RATCF DAIR) processing system. During this tour, Mr. Wojtkowski initiated the ATC shore community participation in the shipboard 3M system by gaining OPNAV approval and funding for Ship's Equipment Configuration Accounting System inventories aboard Navy and Marine air stations. This effort evolved to the current NAALS Configuration Data Manager (CDM) Micro

Organizational Maintenance Management System (MOMMS) providing, for the first time, a means to collect and analyze ashore the same type of maintenance data already available for identical NAALS equipment installed on ships. During the Professional Air Traffic Controllers Organization strike against the government, Mr. Wojtkowski prepared the initial Naval impact assessments and recommendations that enabled augmentation of the FAA National Airspace System with Navy and Marine air traffic controllers with minimal disruption to military operations.

Mr. Wojtkowski's other Navy significant experience includes assignments to four aviation squadrons including Commanding Officer of Training Squadron Ten responsible for all Naval Flight Officer Basic and Intermediate ground school, simulator, and in-flight training (1982-1985), two operational anti-submarine warfare tours as a Tactical Coordinator in patrol aircraft (1965-1969 & 1974-1976), and three years as the Training Department Head responsible for all replacement aircrew operator and maintenance training (including navigation and communications systems) for 144 P-3C aircrews home based on the east coast (1976-1979).

February 17, 1987

MEMORANDUM

From: Mr. R. L. Crepeau, Chairman, Technical Evaluation Board  
To: Chairman, Contract Award Review Panel

Subj: TECHNICAL EVALUATION BOARD RESULTS

Ref: (a) Source Selection Plan For C3I Systems Engineering Research and Analysis

Encl: (1) Summary of Raw Scores  
(2) Summary of Narrative Comments of Evaluators  
(3) Evaluation Scoresheets and Comments of Mr. R. L. Crepeau  
(4) Evaluation Scoresheets and Comments of Mr. B. T. Randall  
(5) Evaluation Scoresheets and Comments of Mr. J. J. Geortz  
(6) Evaluation Scoresheets and Comments of Mr. T. P. Norris

The Technical Evaluation Board has completed its evaluation of the technical proposals submitted in response to the solicitation. The results of this evaluation are presented herein.

Two proposals were received for evaluation from: Booz, Allen & Hamilton of San Diego, and Systems Exploration, Inc. of San Diego. These proposals were evaluated in accordance with reference (a).

Enclosure (1) summarizes the raw scores of the evaluation process. Enclosure (2) provides a narrative summary of all evaluator's comments, segregated by the evaluation areas of:

- o Corporate Experience
- o Technical Approach
- o Corporate Assets
- o Corporate Understanding
- o Management Structure
- o Personnel

Enclosures (3)-(6) provide the evaluation scoresheets and comments of the individual evaluators.

In summary, and as Chairman of the Technical Evaluation Board, the following comments apply. Of the two proposals received, that of Booz, Allen & Hamilton, Inc. indicates a significant superiority over that of Systems Exploration, Inc. The Systems Exploration, Inc. proposal has the following two highly significant deficiencies. First, their technical approach and experience reflects a poor ability to perform the principal efforts of this contract - which is systems architecture analysis and design. Their lack of understanding of what is involved in this type of work is obscured by a wealth of verbiage, using the correct buzz-words, but lacking the incisiveness of detail provided in the Booz, Allen & Hamilton proposal. I, as Chairman, believe that my co-evaluators were deluded by this wealth of words into believing the Systems

{ Exploration truly understands this work area. Having an master's degree in Electrical Engineering and fourteen years experience of working for NOSC substantiates my credibility to speak to this matter.

The second key deficiency of the Systems Exploration proposal is in the area of subcontracting. Virtually all of the proposal evaluators addressed the credibility of the subcontracting relationship proposed. On the other hand, the Booz, Allen & Hamilton proposal provided an excellent treatment of this area.

{ Thus, it is my conclusion as Chairman of the Technical Evaluation Board that Booz, Allen & Hamilton, Inc. is significantly technically superior to Systems Exploration, and that Booz, Allen & Hamilton should be selected for the award of this contract.

- RC Claims  
BAH technically  
superior.

- supported by  
Backup.

  
Ronald L. Crepeau

March 17, 1988

## MEMORANDUM

From: R. L. Crepeau, Chairman, Technical Evaluation Board  
 To: G. Givens, Contracting Officer  
 Via: Code 1723 ~~Z~~  
 Subj: TECHNICAL EVALUATION OF BEST AND FINAL OFFERS ON  
 N68786-87-R-3405

MAR 17 1 22 PM '88  
 SPECIAL PROJECT  
 CODE 1723  
 NOSC

Ref: (a) Telecon R. Crepeau-G. Givens of Mar 16, 1988  
 (b) R. L. Crepeau memorandum ser 412/109-87 of May 26, 1987

1. In reference (a) you indicated a requirement for more information to support the conclusions of reference (b). Specifically, you asked for the details of the Booz-Allen & Hamilton score changes as a result of their best and final submission on the subject solicitation.

2. The best and final offers of both Booz-Allen & Hamilton and Systems Exploration were reviewed by myself and B. B. Burris. The results of these reviews were provided as enclosure (1) to reference (b). The conclusions and recommendations based upon the review were provided in the body of reference (b).

3. As stated in reference (b), "The Systems Exploration, Inc (sic., best and final) response did virtually nothing to clarify the deficiencies of the original proposal. The Systems Exploration response was technically weak and on the whole served to confirm the prior evaluation response...". As such, there was no change in the Systems Exploration score.

4. As stated in reference (b), "The Booz, Allen & Hamilton best and final offer response clarified all of the weak areas noted in their original submission...". The weak areas to which they responded effected their score for the evaluation areas of Corporate Experience, Technical Approach, Corporate Understanding and Management, based upon the comments of enclosure (1) to reference (b). The specific score changes that were made are as follows:

Evaluation Factor	BAFO #1		Revised Score	
	Raw	Weighted	Raw	Weighted
Corporate Experience	88.1	22.02	95.0	23.75
Technical Approach	88.1	17.62	95.0	19.0
Corp. Understanding	83.0	2.1	95.0	2.4
Management	84.8	2.1	95.0	2.4

In all other areas, the Booz, Allen & Hamilton score remained unchanged.

5. I continue to support the recommendation of paragraph 4. of reference (b), to wit, that the award go to Booz, Allen & Hamilton.

6. The raw score sheets and related evaluation materials will be forwarded to you in the near future. I hope that this provides the information that you need. Should you have any further questions, I can be reached at 619-553-3990.

③ These are the BAFO #1 scores - w/p # C104 using 7 scorers including Ben Burris. They are not the initial/original scores. For original scores see w/p # 101 & 102 for BAH

Ronald L. Crepeau  
 Ronald L. Crepeau

ATTN: ENCLOSURE (2)



ROUTING SLIP 11ND NOSC! 5 (7-79)

DATE RECEIVED:

ORIGINATOR

FILE AND SERIAL NO.

DATE \_\_\_\_\_

Internal Review Office, Code 007

B8131

**SUBJECT**

19 Aug 88

Hotline Complaint # 88-144262

1621

REMARKS  
(Please write on first available line in order to provide)

[illegible]

**ATTACHMENT (2)**

SYMBOLS: A - ACTION

C - COMMENT

## I - INFORMATION

P - PREPARE REPLY

R - RETAIN COPY

S - SIGNATURE

F13-1073 000311



DEPARTMENT OF THE NAVY  
NAVAL OCEAN SYSTEMS CENTER  
SAN DIEGO, CALIFORNIA 92152-5000

IN REPLY REFER TO:

5370  
Ser 007/B8131  
22 AUG 1988

From: Commander, Naval Ocean Systems Center  
To: Commander, Space and Naval Warfare Systems Command  
(SPAWAR 00G)  
Subj: HOTLINE COMPLAINT #88-144262 (880668)  
Encl: (1) Defense/Navy Hotline Completion Report as of 19 August  
1988  
1. Enclosure (1) is submitted for your use and retention.

  
E. G. SCHWEIZER

**DEFENSE/NAVY HOTLINE COMPLETION REPORT**

**AS OF 19 AUGUST 1988**

1. Official Conducting Investigation: R.F. Barney.
2. Grade of Official: DP-III(GS-13).
3. Duty Position and Telephone Number of Official: Auditor. Autovon 553-3007 or Commercial (619) 553-3007.
4. Organization of Official: Internal Review Office, Code 007, Naval Ocean Systems Center, San Diego, California 92152-5000.
5. Hotline Control Number: #88-144262 (880668)
6. Scope of Examination, Conclusions, and Recommendations:

a. A former Naval Ocean Systems Center (NAVOCEANSYSCEN) employee (Ben Burris) is accused of a Conflict of Interest for developing a Request for Procurement (RFP) for his new employer, Booz, Allen & Hamilton. Reportedly, efforts were made to affect the technical evaluation to justify Booz-Allen's higher price by Burris's former subordinates. The allegation further states that Burris holds a marketing position with Booz-Allen and it is likely his job performance evaluation is dependent upon this potential contract award. The contract is classified and is being awarded through a contracting office in Oakland.

b. Personnel records and contract request documents at NAVOCEANSYSCEN were reviewed. Due to the classification of the contract documents, review was performed by properly classified personnel in the NAVOCEANSYSCEN Intelligence Office. Personnel in the Naval Regional Contracting Center Branch, Washington, and Navy Regional Plant Equipment Office, Oakland, have reviewed the procurement documentation and their responses are attached.

c. Ben Burris did retire from NAVOCEANSYSCEN on 31 January 1988 and subsequently accepted employment with Booz-Allen. During February 1988 a review of these circumstances was made by Counsel at Navy Regional Plant Equipment Office, Oakland, in regards to the subject RFP. No conflict of interest was found, and precautionary actions were taken (see attached memorandum dated 29 Feb 88). A current review by a Contracting Officer at Naval Regional Contracting Center Branch, Washington, reached the same conclusion (see attached memorandum dated 3 Aug 1988). The limited review performed at NAVOCEANSYSCEN did not discover any evidence to support the Conflict of Interest claim. Essentially, Ben Burris notified the proper authorities when he accepted employment with Booz-Allen, and precautions were taken to ensure the subject RFP would be fairly awarded.

7. Criminal or Regulatory Violations Substantiated: None.

8. **Disposition:** No charges imposed or additional action.

9. **Security Classification of Information:** The subject RFP is classified and no evidence was found to indicate compromise was ever a issue. The contents of this report is UNCLASSIFIED.

10: **Location of Field Working Papers and Files:** Working papers for this investigation are maintained in the Internal Review Office, Code 007, NAVOCEANSYSCEN, San Diego, CA 92152-5000.



DEPARTMENT OF THE NAVY  
NAVAL REGIONAL CONTRACTING CENTER BRANCH  
WASHINGTON, D.C. 20360

IN REPLY REFER TO:

3 AUG 1988

MEMORANDUM

From: LCDR Gary G. Given, SC, USN  
To: Mr. Carl Grieve, NOSC Code 17

Subj: Potential conflict of interest concerning RFP 87-R-3405

Encl: (1) Office of Counsel Memorandum for the Contracting Officer  
dated 29 FEB 1988

1. A review has been made of all of the facts, as could be obtained under the circumstances, concerning the appearance of a conflict of interest with regard to the selection of an awardee under the subject competitive solicitation. This review was completed in February 1988 after notification by Mr. Ben Burris that he had accepted employment with Booz-Allen & Hamilton. Based on this review the following conclusions were made:

a. There is no evidence that the source selection process was deliberately structured in the favor of Booz-Allen & Hamilton with the result being to enhance the employment opportunities available to Mr. Ben Burris at Booz-Allen & Hamilton.

b. Mr. Ben Burris made the proper notification to the Government at the time that he entered into discussions with Booz-Allen & Hamilton for potential employment.

c. Upon learning of Mr. Burris' notification of retirement and subsequent employment with Booz-Allen & Hamilton, the Government took all possible precautions to isolate Mr. Burris from the source selection process. These precautions included:

(1) Removal of Mr. Burris as the Contracting Officer's Technical Representative (COTR).

(2) Exclusion of all technical scoring by Mr. Burris from the technical evaluation.

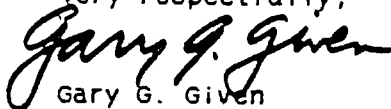
(3) Requested a second round of Best and Final Offers that were independently evaluated by the Technical Evaluation Board.

(4) Requested an evaluation by the office of counsel to determine if any other action was necessary. A copy of the office of counsel memorandum is included as Enclosure (1).

Subj: Potential conflict of interest concerning RFP 87-R-3405

3. Based on the review completed by myself and legal counsel, I have no basis by which to conclude that any further action is necessary in order to sufficiently address the appearance of a conflict of interest.

Very respectfully,

A handwritten signature in cursive script, appearing to read "Gary G. Given".

Gary G. Given  
LCDR, SC, USN  
Contracting Officer



DEPARTMENT OF THE NAVY  
NAVY REGIONAL PLANT EQUIPMENT OFFICE

NAVAL SUPPLY CENTER  
CODE 87, BLDG. 442-E  
OAKLAND, CALIFORNIA 94625

415-466-5326

IN REPLY REFER TO:

87:FJM:v  
12735

29 FEB 88

MEMORANDUM FOR THE CONTRACTING OFFICER

Re: ACCEPTANCE OF EMPLOYMENT WITH CONTRACTOR BY FORMER  
GOVERNMENT EMPLOYEE

1. You have requested that I document the oral advice previously provided regarding the employment of Mr. Ben Burris, former NOSC COTR, by Booz, Allen & Hamilton. Among other duties while employed at NOSC, Mr. Burris acted as project manager (designated COTR) for the work covered by RFP N68786-87-R-3405. Booz, Allen & Hamilton is one of two offerors on RFP-3405. RFP-3405 has not been awarded, and best and final offers were solicited and evaluated in the spring 1987 while Mr. Burris was still employed at NOSC and acting as the project manager for RFP-3405. The -3405 solicitation files reveal the following facts:

- a. Mr. Burris formerly Code 42, NOSC accepted an offer of employment with Booz, Allen & Hamilton on or about 31 January 1988 subsequent to his retirement from Federal service.
- b. The solicitation file for RFP-3405 reveals that Mr. Burris signed several documents (including the SOW and Source Evaluation Plan) included in the Request For Special Contracting Support letter dated 24 February 1986 and signed by R. T. Shearer. Mr. Burris was identified in the Shearer letter as the project manager.
- c. Mr. Burris signed the J&A supporting limited competition on RFP-3405. The J&A was dated 12 February 1987.
- d. RFP N68786-87-R-3405 was issued on 10 December 1986 with a deadline for offers set for 23 January 1987.
- e. Two offers were received in response to RFP-3405: one from SEI (Systems Explorations, Inc.) and one from Booz, Allen & Hamilton.

Re: ACCEPTANCE OF EMPLOYMENT WITH CONTRACTOR BY FORMER  
GOVERNMENT EMPLOYEE

- f. The results of the technical evaluation of offers were reported to the contracting officer by memo dated 17 February 1987, signed by Ronald L. Crepeau, B. T. Randall, J. J. Geortz, and T. P. Norris --- members of the TEB. There is no evidence in the file that Mr. Burris was involved in the first technical evaluation of offers on -3405.
  - g. The TEB chairman concluded in his 17 February 1987 memo that, while the raw scores were relatively close (Booz, Allen rated slightly higher), the Booz, Allen proposal indicated "... a significant superiority over that of Systems Explorations ...."
  - h. A best and final offer was requested from each of the two offerors and each submitted a best and final price and revised technical proposals.
  - i. The revised technical proposals were evaluated and the scores reported by the TEB chairman by memo dated 26 May 1987.
  - j. The "best and final" technical evaluation raised the Booz, Allen score slightly, but had virtually no effect on the SEI score.
  - k. Mr. Burris sat as a member of the TEB for the technical evaluation of the best and final proposals.
  - l. No further action has been taken toward award of the contract under RFP-3405.
  - m. A letter dated 30 September 1987 removed Mr. Burris as "COTR" on RFP-3405.
2. On or about 29 September 1987, Mr. Burris was contacted by Booz, Allen & Hamilton regarding future employment with them. Shortly after this contact, Mr. Burris contacted the undersigned by letter dated 13 October 1987, and filed with that letter a "Questionnaire and Request for DAEO Opinion." In response to Mr. Burris inquiry regarding



Re: ACCEPTANCE OF EMPLOYMENT WITH CONTRACTOR BY FORMER  
GOVERNMENT EMPLOYEE

future employment, he was referred to Counsel, NOSC for advice and counseling. Your recent contact with Booz, Allen indicates that:

- a. Any offer to Mr. Burris of employment with Booz, Allen was contingent upon the issuance of a favorable legal opinion from the DAEO regarding such employment;
- b. Under the applicable agency procedures, Mr. Burris' request was forwarded to Counsel, SPAWAR, and an opinion was issued and a copy provided to Booz, Allen & Hamilton;
- c. The opinion found no violation of 10USC2379b in Mr. Burris' employment with Booz, Allen provided that the information provided by Mr. Burris remains accurate and complete.

3. Reviewing the above facts, I find no reason to believe that there has been any violation of the Standards of Conduct by Mr. Burris concerning his actions on RFP-3405. Further, there does not appear to be any reasonable basis to conclude that Booz, Allen has been unfairly favored in the evaluation of its proposal under RFP-3405. However, as a precaution against any appearance of impropriety, I orally recommended to you that Mr. Burris' technical scores of the evaluation of the best and final proposals be excluded from the composite technical scores. Further, it is recommended that another round of best and final offers be solicited due to the age of the first best and final offers, and confirmation of the availability of proposed personnel be requested along with updated pricing proposals in the best and final letter.

4. In the event Booz, Allen is awarded the contract, any contacts with Mr. Burris regarding the contract should be reported to me as a possible violation of 18USC 207(a) and/or 207(b)(1).

  
F. J. MILON  
Counsel

25 August 1988

MEMORANDUM

From: Carl H. Grieve, PSC  
To: Gary Given, KO

Subj: CONTRACT 1621 AWARD

Ref: (a) Phoncon btn G. Given and J. McCarthy of 8/24/88  
(b) Naval IG ltr Ser 01/2103 of 25 July 88 (Advance copy)  
(c) Contracting Officer Memorandum of 3 August 88  
(d) COMNOSC ltr Ser 007/B8131 of 22 AUG 88 (NOTAL)

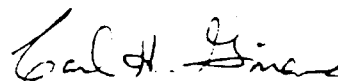
1. As discussed during reference (a), the following information is provided for record purposes:

a. Based on reference (b), which was received at this Center as an advanced copy to a possible complaint against an exemployee of the Center, a complete review of the events and specific selection criteria surrounding the then pending award of contract 1621 (formerly RFP 3405) was conducted by your organization. Based on that review, reference (c) was forwarded this Center for comment and action as deemed appropriate.

b. The Head of the Center's Internal Review Staff, Mr. S. Lupo, was provided copies of all information which was again reviewed before being presented the Commander of the Naval Ocean Systems Center. The Commander's comment, based on all available information, was that there appears to have been no impropriety associated either before or since Mr. Burris participation in the subject contractual matter. Based on all know information, the Commander, NOSC does not object in any manner or form to the continuation of the award process as currently undertaken by Mr. G. Given.

c. Hotline Complaint #88-144262 (880668) was forwarded to this Center officially and was responded to by reference (d). No objections to award of contract were stated nor were criminal/regulatory violations noted.

2. Should additional clarification or amplification be required, please do not hesitate to call.

  
CARL H. GRIEVE  
PSC

07/28/88

13:45

NAVELEX 07

NO. 015

002



**DEPARTMENT OF THE NAVY**  
**NAVAL INSPECTOR GENERAL**  
**WASHINGTON, D.C. 20374-2001**

IN REPLY REFER TO

5370

Ser 01/2103

25 JUL 1988

**From:** Naval Inspector General  
**To:** Commander, Space and Naval Warfare Systems Command  
**Subj:** DOD HOTLINE COMPLAINT 88-L44262 (880668); ALLEGED CONFLICT  
OF INTEREST BY FORMER EMPLOYEE OF NAVAL OCEAN SYSTEMS  
CENTER, OAKLAND

**Ref:** (a) SECNAVINST 5370.5A

**Encl:** (1) Subject Hotline Complaint

1. Please inquire into the allegations contained in enclosure (1) and provide a response by 1 September 1988. Reference the hotline complaint number in all correspondence.
2. Ensure that the requirements of reference (a) are observed and due consideration is given to independence, completeness, timeliness, and accountability.
3. We appreciate your support in this matter.

S.W. PATTON  
DEPUTY

GENTLEMEN:

INFORMATION AVAILABLE TO ME INDICATES THAT A CONTRACT (U.S. NAVY) MAY BE AWARDED TO A COMPANY BECAUSE OF RELATIONSHIPS THAT APPEAR TO BE A CONFLICT OF INTEREST.

A CONTRACT FOR ANALYTICAL SERVICES IN CSI AREAS REQUIRED BY THE NAVAL OCEAN SYSTEMS CENTER (CODE 41) AND BEING PROCURED THROUGH A CLASSIFIED CONTRACTING OFFICE IN OAKLAND IS BEING INFLUENCED IN AWARD BECAUSE OF RELATIONSHIPS BETWEEN A FORMER CIVIL SERVANT, BEN BURRIS AND SOME OF HIS FORMER NOSC SUBORDINATES WHO ARE NOW TRYING TO AWARD THE CONTRACT TO HIS CURRENT EMPLOYER, BOOZE-ALLEN HAMILTON.

MR. BURRIS WAS A PROGRAM MANAGER AT NOSC WHO ADMINISTERED MANY CONTRACTS WITH BOOZE-ALLEN OVER SEVERAL YEARS. DURING HIS LAST YEAR BEFORE RETIRING (JAN 1988) FROM GOVERNMENT HE CAUSED AN RFP TO BE DEVELOPED, ISSUED AND TECHNICALLY EVALUATED WITH THE OBVIOUS INTENT OF HAVING IT AWARDED TO HIS NEW EMPLOYER.

IT APPEARS THAT AT THIS TIME GREAT EFFORTS ARE BEING MADE TO JUSTIFY AN AWARD TO BOOZE-ALLEN BY BURRIS' FORMER SUBORDINATES TO OVERCOME THEIR HIGHER COSTS.

MR. BURRIS HAS A MARKETING POSITION WITH BOOZE-ALLEN AND IT'S LIKELY HIS JOB PERFORMANCE EVALUATION IS DEPENDENT UPON THIS POTENTIAL CONTRACT AWARD TO HIS COMPANY

NOTICE: The source chose to remain anonymous. However, the information contained herein may identify him if revealed to those involved. Therefore, the details will not be made available to unauthorized personnel. If partial release of the information is required to assist in the inquiry, every effort will be made to protect the source's identity in keeping with the Secretary of Defense memo of June 5, 1981 and Public Law 95-452, as amended by Public Law 97-252.

88-44202



DEPARTMENT OF THE NA  
NAVAL REGIONAL CONTRACTING CEN  
WASHINGTON, D.C. 20360

Hold until official  
version of complaint  
is received.

*[Handwritten signature]*

MEMORANDUM

From: LCDR Gary G. Given, SC, USN  
To: Mr. Carl Grieve, NOSC Code 17

Subj: Potential conflict of interest concerning RFP 87-R-3405

Encl: (1) Office of Counsel Memorandum for the Contracting Officer  
dated 29 FEB 1988

1. A review has been made of all of the facts, as could be obtained under the circumstances, concerning the appearance of a conflict of interest with regard to the selection of an awardee under the subject competitive solicitation. This review was completed in February 1988 after notification by Mr. Ben Burris that he had accepted employment with Booz-Allen & Hamilton. Based on this review the following conclusions were made:

a. There is no evidence that the source selection process was deliberately structured in the favor of Booz-Allen & Hamilton with the result being to enhance the employment opportunities available to Mr. Ben Burris at Booz-Allen & Hamilton.

b. Mr. Ben Burris made the proper notification to the Government at the time that he entered into discussions with Booz-Allen & Hamilton for potential employment.

c. Upon learning of Mr. Burris' notification of retirement and subsequent employment with Booz-Allen & Hamilton, the Government took all possible precautions to isolate Mr. Burris from the source selection process. These precautions included:

(1) Removal of Mr. Burris as the Contracting Officer's Technical Representative (COTR).

(2) Exclusion of all technical scoring by Mr. Burris from the technical evaluation.

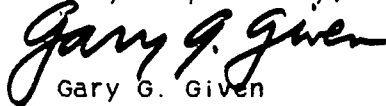
(3) Requested a second round of Best and Final Offers that were independently evaluated by the Technical Evaluation Board.

(4) Requested an evaluation by the office of counsel to determine if any other action was necessary. A copy of the office of counsel memorandum is included as Enclosure (1).

Subj: Potential conflict of interest concerning RFP 87-R-3405

3. Based on the review completed by myself and legal counsel, I have no basis by which to conclude that any further action is necessary in order to sufficiently address the appearance of a conflict of interest.

Very respectfully,

A handwritten signature in black ink, appearing to read "Gary G. Given", written in a cursive style.

Gary G. Given  
LCDR, SC, USN  
Contracting Officer



DEPARTMENT OF THE NAVY  
NAVY REGIONAL PLANT EQUIPMENT OFFICE

NAVAL SUPPLY CENTER  
CODE 87, BLDG. 442-E  
OAKLAND, CALIFORNIA 94625

415-466-5326

IN REPLY REFER TO:

87:FJM:v  
12735

29 FEB 88

MEMORANDUM FOR THE CONTRACTING OFFICER

Re: ACCEPTANCE OF EMPLOYMENT WITH CONTRACTOR BY FORMER  
GOVERNMENT EMPLOYEE

1. You have requested that I document the oral advice previously provided regarding the employment of Mr. Ben Burris, former NOSC COTR, by Booz, Allen & Hamilton. Among other duties while employed at NOSC, Mr. Burris acted as project manager (designated COTR) for the work covered by RFP N68786-87-R-3405. Booz, Allen & Hamilton is one of two offerors on RFP-3405. RFP-3405 has not been awarded, and best and final offers were solicited and evaluated in the spring 1987 while Mr. Burris was still employed at NOSC and acting as the project manager for RFP-3405. The -3405 solicitation files reveal the following facts:

- a. Mr. Burris formerly Code 42, NOSC accepted an offer of employment with Booz, Allen & Hamilton on or about 31 January 1988 subsequent to his retirement from Federal service.
- b. The solicitation file for RFP-3405 reveals that Mr. Burris signed several documents (including the SOW and Source Evaluation Plan) included in the Request For Special Contracting Support letter dated 24 February 1986 and signed by R. T. Shearer. Mr. Burris was identified in the Shearer letter as the project manager.
- c. Mr. Burris signed the J&A supporting limited competition on RFP-3405. The J&A was dated 12 February 1987.
- d. RFP N68786-87-R-3405 was issued on 10 December 1986 with a deadline for offers set for 23 January 1987.
- e. Two offers were received in response to RFP-3405: one from SEI (Systems Explorations, Inc.) and one from Booz, Allen & Hamilton.

Re: ACCEPTANCE OF EMPLOYMENT WITH CONTRACTOR BY FORMER  
GOVERNMENT EMPLOYEE

- f. The results of the technical evaluation of offers were reported to the contracting officer by memo dated 17 February 1987, signed by Ronald L. Crepeau, B. T. Randall, J. J. Geortz, and T. P. Norris --- members of the TEB. There is no evidence in the file that Mr. Burris was involved in the first technical evaluation of offers on -3405.
  - g. The TEB chairman concluded in his 17 February 1987 memo that, while the raw scores were relatively close (Booz, Allen rated slightly higher), the Booz, Allen proposal indicated "... a significant superiority over that of Systems Explorations ...."
  - h. A best and final offer was requested from each of the two offerors and each submitted a best and final price and revised technical proposals.
  - i. The revised technical proposals were evaluated and the scores reported by the TEB chairman by memo dated 26 May 1987.
  - j. The "best and final" technical evaluation raised the Booz, Allen score slightly, but had virtually no effect on the SEI score.
  - k. Mr. Burris sat as a member of the TEB for the technical evaluation of the best and final proposals.
  - l. No further action has been taken toward award of the contract under RFP-3405.
  - m. A letter dated 30 September 1987 removed Mr. Burris as "COTR" on RFP-3405.
2. On or about 29 September 1987, Mr. Burris was contacted by Booz, Allen & Hamilton regarding future employment with them. Shortly after this contact, Mr. Burris contacted the undersigned by letter dated 13 October 1987, and filed with that letter a "Questionnaire and Request for DAE0 Opinion." In response to Mr. Burris inquiry regarding



Re: ACCEPTANCE OF EMPLOYMENT WITH CONTRACTOR BY FORMER  
GOVERNMENT EMPLOYEE

future employment, he was referred to Counsel, NOSC for advice and counseling. Your recent contact with Booz, Allen indicates that:

- a. Any offer to Mr. Burris of employment with Booz, Allen was contingent upon the issuance of a favorable legal opinion from the DAEO regarding such employment;
- b. Under the applicable agency procedures, Mr. Burris' request was forwarded to Counsel, SPAWAR, and an opinion was issued and a copy provided to Booz, Allen & Hamilton;
- c. The opinion found no violation of 10USC2379b in Mr. Burris' employment with Booz, Allen provided that the information provided by Mr. Burris remains accurate and complete.

3. Reviewing the above facts, I find no reason to believe that there has been any violation of the Standards of Conduct by Mr. Burris concerning his actions on RFP-3405. Further, there does not appear to be any reasonable basis to conclude that Booz, Allen has been unfairly favored in the evaluation of its proposal under RFP-3405. However, as a precaution against any appearance of impropriety, I orally recommended to you that Mr. Burris' technical scores of the evaluation of the best and final proposals be excluded from the composite technical scores. Further, it is recommended that another round of best and final offers be solicited due to the age of the first best and final offers, and confirmation of the availability of proposed personnel be requested along with updated pricing proposals in the best and final letter.

4. In the event Booz, Allen is awarded the contract, any contacts with Mr. Burris regarding the contract should be reported to me as a possible violation of 18USC 207(a) and/or 207(b)i).

  
F. J. MILON  
Counsel

BBB:rh  
Ser 412/217-87  
30 September 1987

MEMORANDUM


From: B. Burris, Code 412  
To: G. Siri, Contracting Officer  
Via: Code 1723Z


Subj: NOTIFICATION OF COTR CHANGE

Ref: (a) NAVOCEANSYSCEN ltr Ser 1723/32-86 dtd 24 February 1986

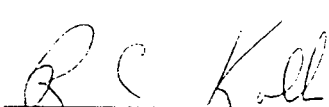
1. Effective 1 October 1987 Mr. Ron Crepeau, Code 412 is officially tasked to act as COTR for Contract 3405, reference (a) is germane.

2. Mr. Crepeau will replace Mr. B. Burris in all matters related to the identified contract. The COTR change is necessitated due to operational requirements associated with the management objectives of this center.

  
B. B. BURRIS  
COTR

Approved: 

F. S. KACER, Head, Code 41

Approved: 

DR. R. KOLB, Acting Head, Code 40

Copy to:  
Code 17  
Code 412 (R. Crepeau)

FIRST ENDORSEMENT

From: 1723

1. Mr. Crepeau was program indoctrinated this date.

  
J. V. MCCARTHY

Oct 19 3 56 PM '87  
SPECIAL DELIVERY  
CODE 1723  
10362

29 OCT 1987

MEMORANDUM

From: R. Crepeau, Code 423, COTR 1621  
To: G. Siri, Contracting Officer  
Via: Code 1723 *Z*

Subj: COTR CHANGE; NOTIFICATION OF

Ref: (a) COMNOSC ltr ser 1723/32-86 of 24 Feb 1986

1. Effective 1 March 1989, Dr. John Schill, Code 423, is officially tasked to act as COTR for Contract 1621 (reference (a) germane). Dr. Schill will replace Mr. Crepeau in all matters related to the identified contract. This COTR change is necessitated due to operational requirements associated with management objectives of this Center. Mrs. Kathleen Yarnell will act as ACOTR under this change.

*R. Crepeau*  
R. CREPEAU  
COTR 1621

APPROVED: *[Signature]*

Division Head

APPROVED: *[Signature]*

Department Head

Copy to:  
Code 17  
Code 423  
1621 file

FEB 23 4 33 PM '89  
SPC 111 111 111  
111 111 111

## BADGE INFORMATION

ISSUED BY EMPLOYEE/VISITOR

NAME (Middle)

B

REGISTERED ALIEN/NATURALIZATION NO.

EYES

BEN

City, State &amp; Zip Code

SOLCDAJ MT RD

CONTRACTORS OR DOD VISITORS ONLY

SECURITY OFFICER /C

(Contract's)

CONTRACT NUMBER

COMPLETED BY SECURITY

EXPIRATION DATE

STATUS (See list below)

PRIVILEGES

CAMERA PASS NO.

ISSUE DATE

IDENT I.D. NUMBER

ISSUE DATE

DATE BADGE LOST

DECALS

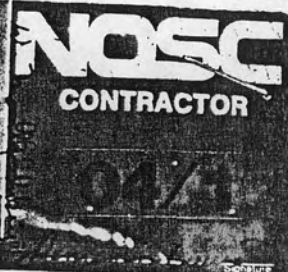
PART V - TO BE COMF

TY	DECAL NUMBER	DECAL COLOR	INSI
	KFC621	g	D
	13588	g	
	13588	g	
	13588	g	
	13588	g	
	13588	g	
	13588	g	
	13588	g	
	13588	g	
	13588	g	

NP New Professional  
RO Reserve Officer  
RE Reserve Enlisted  
CT Consultant

NOTE: See reverse side  
for badge/decals agreements,  
and Privacy Act Statement.

Consultant



BENJAMIN BURRIS



BENJAMIN BURRIS

MEMORANDUM FOR B.B. BURRIS  
NAVAL OCEAN SYSTEMS CENTER (NAVOCEANSYSCEN), CODE 412

Subj: 10 USC 2397b DETERMINATION

Enclosure: (1) Memorandum dated 11 November 1987 w/ appendices  
(2) Department of Defense Interim Implementing Regulations

This memorandum responds to enclosure (1) which requests an opinion under 10 USC 2397b and correspondingly a Secretarial decision whether or not you can accept compensation from the following Department of Defense (DoD) contractors upon your imminent retirement from the Department of the Navy (DoN):

Control Data Corporation (CDC)  
BOOZ-Allen & Hamilton, Inc. (BOOZ-Allen)  
Advance Technology  
Systems Exploration, Inc. (SEI)  
United Airlines  
Ultra Systems, Inc. (Ultra)  
McDonnell Douglas, Inc. (McDonnell)

During the past two years of DoD service, you attained the grade of GS-15, step 10 and received \$69,400 per annum, paragraph 1 B, enclosure (1). You clearly fall within the class of employees who must closely scrutinize current DoD employment and prospective civilian employment to determine whether or not the statutory and regulatory provisions, termed the "Revolving Door Statute," 10 U.S.C. 2397b, permit acceptance of compensation from DoD contractors following your tenure as a government employee.

There are three provisions of 10 U.S.C. 2397b which may apply to you; the first of which is set forth below:

(A) on a majority of the person's working days during the two-year period ending on the date of such person's separation from service in (DoD), the person performed a procurement function . .

at a site or plant that is owned or operated by the contractor and that was the principal location of such person's performance of that procurement function . . .

In paragraph 3 A and Attachment A, you indicate that you did extensive travelling during the past two years. However, you document the fact that you did not travel to a contractor site. Consequently, the first provision does not apply to you and does not in of itself restrict further employment with the listed defense contractors.

**ATTACHMENT (1)**

A second provision, set forth in paragraph (B) of 10 U.S.C. 2397b restricts post employment if:

(B) the person performed, on a majority of the person's working days during such two-year period, procurement functions relating to a major defense system and, in the performance of such functions, participated personally and substantially, and in a manner involving decision making responsibilities, with respect to a contract for that system through contact with the contractor . . .

Paragraph 3 A, enclosure (1), you indicate that you worked a total of 458 days, excluding holidays, annual and sick leave. You also indicate that you were travelling 240 days of the total 458 days. Pursuant to Attachment A, enclosure (1), you document the fact that you travelled to various DoD sites to discuss technical matters. You do not identify any procurement related functions performed at these DoD sites. On that basis alone, therefore, you may not be restricted from working for any DoD contractor.

A second basis or factor which may limit future employment focuses on the performance of procurement functions. In paragraph 3 B and C you state affirmatively that you do not believe that you performed procurement functions in your capacity as Head of Code 412. In Attachment B you describe your job as that of "Technical Manager . . . responsible for analysis, design (sic), implementation and engineering support." Basically, you define your work as a planner and engineer, quite divorced from the hands-on coordination element associated with procurement functions. You state, to paraphrase, that you direct the project managers and quality control personnel to accomplish tasks or projects. You do not, however, specify which contractual vehicles to utilize in accomplishing their respective tasks.

You indicate that you do not play a key and or substantial role in decision-making. You highlight that fact in Attachment C, enclosure (1). You indicate that high-level subordinate employees deal directly with the contractors. You describe your limited involvement with various procurements, Attachment D, and indicate that you initiated the competitive procurements which eventually went to potential employer(s), CSC and SEI. You also indicated that you initiated delivery order tasks to CSC, SEI, CDC, BOOZ-Allen, and Advanced Technology. You reiterate, however, that the contractor selection process and contract administration was and is not handled by you but by high-level subordinate employees.

I concur in your conclusion that the above-described tasks, see Attachments B, C and D, do not prevent you from accepting employment with any of the identified contractors. While any work relating to contract management, even at the highest levels, could be considered a "procurement function," the statute does not

proscribe all procurement functions relating to a contract.

The statute proscribes procurement functions relating to a major defense system and, in the performance of such functions, . . . "(the employee) participated personally and substantially, and in a manner involving decisionmaking responsibilities . . . through contact with the contractor." As indicated, you did not participate personally and substantially in the procurement functions described; you had high-level subordinates involved in the day-to-day contracting effort. While you had ultimate decisionmaking authority with respect to the project, you did not personally involve yourself in the factual analysis and decisionmaking process in the day-to-day contract administrative functions. You did not evaluate contract proposals, you did not review cost estimates, you did not personally do quality control on contractor-work-product; and, you were not responsible for selecting appropriate contractors to do the required work. Consequently, the work described does not fall within the proscription set forth in paragraph (B) of 10 U.S.C. 2397b.

You contrast these managerial tasks not falling within 10 U.S.C. 2397b with those acts you clearly define as "procurement function(s)," Attachment E, enclosure (1). You have been a contracting officer technical representative on certain classified contracts involving CDC (9 days); SEI (10 days) and BOOZ-Allen (55 days) for a total of 74 days. However, you did not perform a majority of your time, as defined, in those procurement functions. Therefore, these procurement tasks do not prevent you from working with either CDC, SEI and/or BOOZ-Allen.

Even assuming that you have performed "procurement functions", you have identified only three major defense systems with which you or your branch has worked--Worldwide Military Command and Control Information System (WIS), Tactical Command System (TCS) and the Anti-Submarine Warfare Operational Center (ASWOC). Contractors involved in those projects include SEI, Advanced Technology, and CDC. Therefore, even if the other elements of paragraph (B), 10 U.S.C. 2397b, were met, you would be disqualified from working with only those major defense system contractors. However, I do not believe that you fall within Paragraph (B); and, as indicated, I conclude that you can work for any of the listed DoD contractors listed as potential employers.

As a DoD employee earning in excess of the minimum wage of a senior executive service employee (\$64,000), paragraph 2, enclosure (1), you may be disqualified if you negotiated a claim and/or contract in excess of \$10,000,000 with any of the potential DoD contractors; see paragraph (C), 10 U.S.C. 2397b. Pursuant to paragraph 6, enclosure (1), you indicate that you did not negotiate any \$10,000,000 contracts and/or \$10,000,000 claims with any contractor. You therefore are not prohibited from accepting employment with any DoD contractor on the basis of paragraph (C), 10 U.S.C. 2397b.

In conclusion, I have determined that you can seek future employment with any of the listed DoD contractors provided the situation does not change within the next 30 days to negate the accuracy of the information provided.



EMPLOYMENT RESTRICTIONS ON CERTAIN FORMER DOD OFFICIALS

10 U.S.C. §2397b

QUESTIONNAIRE

You should complete this questionnaire if you are a current or former DoD employee or officer either contemplating separation from, or who has separated from, the Department, and you request a legal opinion from a Designated Agency Ethics Official concerning your intention to accept employment with a DoD contractor within two years after separation. We recommend you obtain this formal legal opinion as close as possible to your anticipated separation date. Your answers will provide us with a good starting point in addressing your situation. Please make your answers as complete as possible. You should first review the guidelines and hypothetical questions and answers attached to this questionnaire. The statute's restrictions apply only to DoD contractors with DoD contracts in excess of \$10,000,000 during the fiscal year prior to the fiscal year in which compensation is first received from the contractor. Your Designated Agency Ethics Official will verify whether any of the listed contractors in your answers qualify as a "major defense contractor" during the relevant fiscal year. Please answer all questions which pertain to your situation.

1. In what agencies or departments did you serve during the last two years of your DoD service? Please provide dates of service. If you have already separated, please provide the date of your separation.

2. If you are currently a DoD employee, when do you anticipate separating?

3. If you are currently a DoD employee, but you have been in the Department for less than two years, please provide the date you began your DoD service.

**ATTACHMENT (2)**

4. During the last two years of DoD service, what was your highest pay grade and step (or pay grade if you were in the Armed Forces)? If you were not a General Schedule or Senior Executive Service employee, or higher, what was your highest yearly base salary during the last two years of DoD service. Please state the year you earned this salary.

5. Over the last two years of DoD service, how many work days did you perform your DoD duties? Consult definition 10 for an explanation of "work days". If you served less than the full two years prior to separation, calculate "work days" based on your actual period of service.

6. Please describe in detail any duties you performed during the last two years of DoD service which you believe were related in any way to a "procurement function". Consult definition 13 for those types of duties included within "procurement function". Be as explicit as possible and try to explain how your duties related to a DoD contract. (A full explanation of your duties is particularly important where your responsibilities did not fall squarely within one of the identified job categories in the provided definition. We are always available to answer any questions you may have.)

7. Concerning the duties you performed which are listed above in reply to question 6, how many total work days did you spend on those "procurement function" related tasks. Be as accurate as possible. Remember, a work day is any day on which you spent any amount of time performing the task. If we determine that some of the tasks you have listed above are "procurement functions", but others are not, we may ask for further clarification on the number of "work days" involved.

8. Of those days listed in your answer to Question 7, above, how many work days did you spend at a site or plant owned or operated by a contractor and which was the principal location of the performance of your duties relating to a "procurement function"? Consult definition 2 for an explanation of "contractor operated facility".

9. Of those days listed in your answer to question 7, how many work days did you spend performing a procurement function relating to a "major defense system"? Consult definition 9 for an explanation of "major defense system". If you have a question as to whether a project was part of a "major defense system", we will attempt to assist you on this question.

10. List the major defense systems with which you were involved during this two year period when you served in DoD.

11. While performing those tasks listed in reply to question 7, above, did you ever act personally and in a substantial manner in a decisionmaking role? Such decisionmaking must have affected a DoD contract for a "major defense system".

12. If you exercised such decisionmaking responsibilities, how many working days during the last two years of DoD service did you have contact with a contractor while performing such responsibilities. Such "contact" requires that your decision be communicated to DoD contractor personnel, either directly or indirectly.

13. Please list the DoD prime contractors with which you had contact regarding the decisions you made as described in reply to question 12, above.

For Those Employees Who Served In A Position For Which The Rate Of Pay Was Equal To The Minimum Rate Of Pay For A Senior Executive Service Position (Or Pay Grade Of 0-7), Or Higher

14. During the last two years of DoD service, were you involved in any way with the negotiation of a DoD contract, including the negotiation of a change to a contract, or the negotiation of a claim on a DoD contract. Please provide details of your involvement (e.g., were you in charge of the negotiation team, or a technical advisor to a negotiator?). As to each such involvement, please state the dollar value of the negotiated amount (or claim amount if an unresolved claim) and the prime contractor to which such negotiations were related. See definition 11 and example 4 for assistance in answering this question.



DEPARTMENT OF THE NAVY  
OFFICE OF THE GENERAL COUNSEL  
WASHINGTON, D.C. 20363-5100

5800

Ser OOC/666

24 21 December 1987

COUNSEL FOR THE  
SPACE AND NAVAL WARFARE SYSTEMS COMMAND

MEMORANDUM FOR B. B. BURRIS, HEAD, CODE 412, NAVAL OCEAN SYSTEMS  
CENTER, (NAVOCEANSYSCEN) San Diego, CA 92102-52-5000

Subj: 10 U.S.C. § 2397b DETERMINATION

Encl: (1) Memorandum dated 11 Nov 87 w/appendices

1. This memorandum responds to enclosure (1), which requests an opinion, under 10 U.S.C. § 2397b, as to whether or not you can accept compensation from the following Department of Defense (DoD) contractors upon your imminent retirement from the Department of the Navy (DoN):

Control Data Corporation (CDC)  
BOOZ-Allen & Hamilton, Inc. (BOOZ-Allen)  
Advanced Technology, (Adtech)  
Systems Exploration, Inc. (SEI)  
United Airlines  
Ultra Systems, Inc.  
McDonnell Douglas, Inc.

2. As you are aware, 10 U.S.C. § 2397b prohibits certain DoD employees from employment with certain defense contractors for a period of two years after leaving government employment. There are three provisions of 10 U.S.C. § 2397(b) which may apply to you.

3. The first provision (10 U.S.C. § 2397b(a)(1)(A)) pertains to individuals who served in a civilian position for which the rate of pay was equal to the minimum rate of pay for a GS-13 or higher, if such individuals spent the majority of their working days during the last two years of DoD service performing a procurement function relating to a DoD contract, at a site or plant that was owned or operated by a contractor, and which was the principal location of their performance of that procurement function.

4. Based on the answers given by you in enclosure (1), you do not fall within the restriction of 10 U.S.C. § 2397b(a)(1)(A). Although you served in a position whose rate of pay was in excess of the minimum rate of pay for a GS-13 (enclosure (1), #1B), you did not perform a procurement function at a contractor site for the majority of your work days over the past two years. You spent a majority of working days for the past two years (240 out of 458 working days) traveling, but your travel was not to contractor sites (enclosure (1), ¶ 3(A), attachments A and C).

5. The second provision of 10 U.S.C. § 2397b restricts post-DoD employment of individuals who served in a civilian position for which the rate of pay was equal to the minimum rate of pay for a GS-13 or higher, and individuals who served in the Armed Forces in pay grades of 0-4 or higher, if such individuals performed, on a majority of their working days during the last two years of DoD service, a procurement function relating to a major defense system and, in the performance of such a function participated on any occasion personally and substantially in a manner involving decisionmaking responsibilities with respect to a contract for that system through contact with the contractor. 10 U.S.C. § 2397b(a)(1)(B).

6. In paragraph 3(A) of enclosure (1), you indicate that you worked a total of 458 days, excluding holidays, annual, and sick leave. You also indicate that you were traveling 240 days of the total 458 days for nonprocurement functions. Pursuant to attachment (A), enclosure (1), you document the fact that you travelled to various DoD sites to discuss technical matters. You have stated that you did not perform any procurement functions while on travel. Thus, you are not restricted from working for any DoD contractor.

7. The third provision of 10 U.S.C. § 2397b is also not applicable to you in regard to the above listed companies. This category covers individuals who served in a civilian position for which the rate of pay was equal to the minimum rate of pay for a Senior Executive Service (SES) position or higher, and individuals who served as members of the Armed Forces in the pay grade of 0-7 or higher, if such individuals during the last two years of DoD service:

- a. acted as a primary representative of the United States in the negotiation with a defense contractor of a defense contract in an amount in excess of \$10 million (the actual contractual action taken by the individual must have been in an amount in excess of \$10 million); or,
- b. acted as a primary representative of the United States in the negotiation of a settlement of an unresolved claim of such a defense contractor in an amount in excess of \$10 million. An unresolved claim shall be valued by the greater of the amount of the claim or the amount of the settlement.

10 U.S.C. § 2397b(a)(1)(C).

8. Although your rate of pay (\$69,400) exceeds the minimum rate of pay for an SES position (\$64,000), you stated that you did not act as a primary representative of the United States in the negotiation with any of the above listed defense contractors in any defense contract in excess of \$10 million or in settling any claim in excess of \$10 million. (Enclosure (1), #4 and 5).

9. In conclusion, I find as the Designated Agency Ethics Official of the Space and Naval Warfare Systems Command (SPAWAR), that you can seek future employment with any of the above listed DoD contractors provided the situation does not change within the next 30 days to negate the accuracy of the information provided. I note that there are other statutory restrictions on post-DoD employment; any such restrictions which may be applicable to you should be addressed through your local counsel.

*Sophie A. Krcsik*

~~HARVEY J. NATHAN~~  
Acting Counsel





DEPARTMENT OF THE NAVY  
OFFICE OF THE GENERAL COUNSEL

IN REPLY REFER TO:

LEGAL COUNSEL  
NAVAL OCEAN SYSTEMS CENTER  
SAN DIEGO, CALIFORNIA 92152-5000

5200  
Ser 0011/0120  
13 November 1987

From: Ms. Barbara J. Amster, Acting Counsel, Code 0011  
To: Command Counsel, Space and Naval Warfare Systems Command,  
ATTN: Ms. Naomi Miske, Associate Counsel

Subj: MEMORANDUM RE: BURRIS/10 U.S.C 2397b

Encl: (1) Sample Memorandum w/ attached questionnaire

1. For your review and action, enclosed please find a sample memorandum w/ supporting questionnaire.

  
BARBARA J. AMSTER  
Acting Counsel

BBB:rh  
Ser 412/254-87  
11 November 1987

MEMORANDUM

From: B. Burris, Code 412  
To: Barbara Amster, Code 0011

Subj: EMPLOYMENT RESTRICTIONS ON CERTAIN FORMER DOD OFFICIALS  
QUESTIONNAIRE AND REQUEST FOR DAEO OPINION

Ref: (a) Code 412 Memorandum Ser 412/178-87, dtd 24 August 1987  
(b) Your Memorandum of 9 September 1987  
(c) Code 412 Memorandum Ser 412/207-87, dtd 17 September 1987  
(d) Our phone conversation on 2 November 1987

Encl: (1) Revised/Updated Questionnaire and Request for DAEO Opinion  
Form (With Attachments A-F)

1. Reference (a) was a request for a DAEO opinion, reference (b) was your response requesting additional information, reference (c) was submitted in response to reference (b). This memo is in response to your reference (d) requesting clarifying information. I have updated enclosure (1) to provide additional and hopefully clarifying information that will aid you in reaching a legal opinion regarding the subject restrictions.

2. Please direct all questions to the undersigned at extension 7481 or 6583.

  
B. B. BURRIS

EMPLOYMENT RESTRICTIONS ON CERTAIN FORMER DOD OFFICIALS

10 U.S.C. 2397b

QUESTIONNAIRE AND REQUEST FOR DAEO OPINION

You should complete this questionnaire if you are a current or former DoD employee or officer either contemplating separation from, or who has separated from, the Department, and you request a legal opinion from a Designated Agency Ethics Official (DAEO) concerning your intention to accept employment with a DoD contractor within two years after separation. We recommend you obtain this formal legal opinion as close as possible to your anticipated separation date. Your answers will provide us with a good starting point in addressing your situation. Please make your answers as complete as possible. You should first review this questionnaire. The statute's restrictions apply only to DoD contractors with DoD contracts in excess of \$10,000,000 during the fiscal year prior to the fiscal year in which compensation is first received from the contractor. Your Designated Agency Ethics Official will verify whether any of the listed contractors in your answers qualify as a "major defense contractor" during the relevant fiscal year. Please answer all questions which pertain to your situation.

1. If you have already left government service:

A. In what agencies or departments did you serve during the last two years of your DoD service? Please provide dates of service.

Navy Department, Naval Ocean Systems Center, San Diego, CA  
92152-5000.

From May 1968 until the present, 11 November 1987.

B. During the last two years of DoD service, what was your highest pay grade and step (or pay grade if you were in the Armed Forces)? Please state the year you attained this grade and step. If you were not a General Schedule or Senior Executive Service Employee, or higher, what was your highest yearly base salary during the last two years of DoD service? Please state the year you earned this salary.

GS-15 Step 9, attained 1 October 1984.

\$69,400.00 attained 1 October 1986.

GS-15, Step 10, attained 1986.

2. If you are currently a DoD employee or officer:

A. In what agencies or departments have you served during the last two years? Please provide dates of service. If you have been in the Department for less than two years, please indicate the date your DoD service began.

Navy Department, Naval Ocean Systems Center, San Diego, CA  
92152-5000.

B. On what date do you anticipate separating? What is your current military pay grade or civilian pay grade and step?

~~on 1 December 1987.~~ **GS-15, Step 10.**

3. For all respondents:

~~contract.~~ Over the last two years of DoD service, on how many work days did you perform any DoD duties? Consult definition 10 for an explanation of "work days". If you served less than the full two years prior to separation calculate "work days" based on your actual period of service.

**A total of 458 days excluding Holidays, Annual and Sick Leave days. Further, I performed extensive official travel to several operational navy sites. The number of trips made were 56, total number of temporary duty days away from NOSC were 240. Net working days at NOSC, 218. (SEE ATTACHMENT "A" FOR DETAILED TRIPS). No procurement functions or contracting related functions whatsoever were performed while on temporary duty.**

B. Please describe in detail any duties you performed during the last two years of DoD service which you believe were related in any way to a "procurement function". Consult definition 13 for those types of duties included within "procurement function". Be as explicit as possible and try to explain how your duties related to a DoD contract. (A full explanation of your duties is particularly important where your responsibilities did not fall squarely within one of the identified job categories in the provided definition. We are always available to answer any questions you may have).

I do not believe that my duties are related to a procurement function as outlined in definition 13. Attachment "B, C, D and E" are intended to present an overview of my job as Head of Theater Systems Branch, Code 412 and other relevant information regarding the role of the branch, current projects, contract actions etc.

C. Concerning the duties you performed which are listed above in reply to question 3B, how many total work days did you spend on those "procurement function" related tasks? Be as accurate as possible. Remember, a work day is any day during which you spent any amount of time performing the task. If we determine that some of the task you have listed above are "procurement functions", but others are not, we may ask for further classification on "work days" involved.

**No days were spent in a procurement function as outlined in definition 13. However, if a very broad interpretation is given to definition 13 and if this definition encompasses the day to day management of the branch, then these days equal 74 days over a two year period. (SEE ATTACHMENT "E").** How many work days did you perform any DoD duties? Consult definition 10 for an explanation of

D. Of those days listed in your answer to Question 3B, above, how many work days did you spend at a site or plant owned or operated by a contractor and which was the principal location of the performance of your duties relating to a "procurement function"? Consult definition 2 for an explanation of "contractor operated facility". Please list the names of the contractors, the addresses of each site or plant, and the number of work days spent at each site or plant.

**None.**

E. Of days listed in your answer to question 3B, how many days did you spend performing a procurement function relating to a "major defense system"? Consult definition 9 for an explanation of "major defense system". If you have a question as to whether a project was part of a "major defense system", we will attempt to assist you on this question.

**None. (SEE ATTACHMENT "C").**

4. If your answer to question 3E. above, was more than "zero":

A. List the major defense systems with which you were involved while serving in DoD during the last two years. Again, please consult definition 9 for an explanation of "major defense system". Please provide any specific information you may have on estimated research, development, test and evaluation expenditures; production expenditures; or head of agency designations.

WIS - NOSC expenditures on contracts = 300K for FY 86-87

ASWOC - NOSC expenditures on contracts = 400K for FY 86-87

I do not have any knowledge of total system expenditures for either program nor the dollars actually appropriated for each program/system. (SEE ATTACHMENT "C" and "F").

B. During that time, did you ever act personally and in a substantial manner in a decisionmaking role affecting a DoD contract for a "major defense system"? "Decisionmaking responsibilities" may include approval or disapproval of a contract, or making recommendations with respect to a procurement function.

No. - Please refer to attachment "C".

5. If your answer to question 4B. above was "yes":

A. During the last two years of DoD service, did you have contact with a DoD contractor while performing such decisionmaking responsibilities? Such "contact" requires that your decision be communicated to the DoD contractor, either directly or through other DoD personnel.

Not applicable.

B. Please list the DoD prime contractors with which you had contact with DoD contractor while performing such decisionmaking responsibilities? Such "contact" requires that your decision be communicated to the DoD contractor, either directly or through other DoD personnel.

**NO CONTACT WHATSOEVER.**

Decisions regarding procurements for the World Wide Military Command and Control System (WIS) are made by the U. S. Air Force. The Air Force prime contractors are GTE, IBM, Ford Aerospace, and the Mitre Corporation. (PLEASE SEE ATTACHMENT "F").

Decisions regarding procurements for Anti-Submarine Operational Centers (ASWOC) Upgrade are made solely by Space and Naval Warfare Systems Command, Washington, DC. There was no prime contractor until 1 October 1987, when a contract was awarded to TRW by SPAWARSSCOM.

C. Please list all those DoD contractors with which you are now contemplating employment. We will tailor our opinion to these contractors. Are any of these DoD contractors a parent, affiliate or subsidiary of any contractor you listed in reply to questions 3D and 5B? Please explain the exact relationship.

**POTENTIAL EMPLOYERS**

Control Data Corporation  
BOOZ-Allen & Hamilton, Inc.  
Advance Technology  
System Exploration Inc.  
United Airlines  
Ultra Systems Inc.  
McDonnell Douglas

3D None.

5B None.

6. If you served in pay grade 0-7 or above, or in a civilian position for which the rate of pay was equal to or higher than the minimum rate of pay for a senior executive service position:

A. During the last two years of DoD service, were you involved in any way with the negotiation of a DoD contract, including the negotiation of a change to a contract, or the negotiation of a claim on a DoD contract? Please provide details of your involvement (e. g., were you in charge of the negotiation team, or a technical advisor to a negotiator?). As to each such involvement, please state the dollar value of the negotiated amount (or claim amount if an unresolved claim) and the prime contractor to which such negotiations were related. See definition 11 and example 4 for assistance in answering this question.

No to the first question. No to the second question. Not Applicable to the third question.

and Naval Warfare Systems Command

no prime contractor until 1 October 1987

Name BENJAMIN B. BURRIS

Office Symbol NOSC CODE 412

Phone Number (619) 225-7481

Date of Request 11 NOVEMBER 1987



BENJAMIN B. BURRIS  
TRAVEL ITINERARY  
1985

<u>TRAVEL DATES</u>	<u>DAYS</u>	<u>PLACE</u>	<u>COMMAND</u>
11/12-14/85	3	WASHINGTON, DC	SPAWAR
12/3-5/85	3	WASHINGTON, DC	SPAWAR
12/17-19/85	5	WASHINGTON, DC	SPAWAR
<hr/>			
1986			
1/27-30/86	4	WASHINGTON, DC	SPAWAR
2/10-12/86	3	WASHINGTON, DC	SPAWAR
2/14-15/86	2	HONOLULU, HI	CINCPACFLT
2/25-26/86	2	WASHINGTON, DC	SPAWAR
2/28-3/5/86	6	HONOLULU, HI	CINCPACFLT
3/11-13/86	3	WASHINGTON, DC	SPAWAR
3/23-27/86	5	HONOLULU, HI	CINCPACFLT
4/2-4/86	3	WASHINGTON, DC	SPAWAR
4/9-11/86	3	BALTIMORE, MD	SPAWAR
4/15-17/86	3	WASHINGTON, DC	SPAWAR
5/6-8/86	3	WASHINGTON, DC	SPAWAR
6/4-5/86	2	IRVINE, CA	ULTRA SYSTEMS
6/12-13/86	2	IRVINE, CA	ULTRA SYSTEMS
6/23-25/86	3	WASHINGTON, DC	SPAWAR
7/7-10/86	4	WASHINGTON, DC	SPAWAR

ATTACHMENT A (page 1 of 4)

BENJAMIN B. BURRIS  
TRAVEL ITINERARY  
1986 (CONT'D)

<u>TRAVEL DATES</u>	<u>DAYS</u>	<u>PLACE</u>	<u>COMMAND</u>
8/3-8/86	6	LONDON, UK	CINCUSNAVEUR
8/12-14/86	3	WASHINGTON, DC	SPAWAR
8/20-22/86	3	WASHINGTON, DC	SPAWAR
8/24-30/86	7	HONOLULU, HI	CINCPACFLT
9/8-13/86	6	LONDON, UK	CINCUSNAVEUR
9/21-28/86	8	WASHINGTON, DC	SPAWAR
10/2-8/86	7	HONOLULU, HI	CINCPACFLT
10/19-25/86	7	WASHINGTON, DC	SPAWAR
11/4/86	1	SAN FRANCISCO, CA	NAVAL SUPPLY
11/12-14/86	3	WASHINGTON, DC	SPAWAR
11/20/86	1	LOS ANGELES, CA	ULTRA SYSTEMS
12/1-4/86	5	WASHINGTON, DC	SPAWAR
12/14-18/86	5	WASHINGTON, DC	SPAWAR

1987

1/5-9/87	5	WASHINGTON, DC	SPAWAR
1/12-19/87	8	WASHINGTON, DC	SPAWAR
2/22-25/87	4	WASHINGTON, DC	SPAWAR
2/9-12/87	4	WASHINGTON, DC	SPAWAR
2/22-26/87	5	HONOLULU, HI	CINCPACFLT

ATTACHMENT A (page 2 of 4)

BENJAMIN B. BURRIS  
TRAVEL ITINERARY  
1987 (CONT'D)

3/30/87	1	LOS ANGELES, CA	PASSPORT OFFICE
3/16-19/87	4	WASHINGTON, DC	SPAWAR
4/13-16/87	4	SAN FRANCISCO, CA	NAVAL SUPPLY
4/20-23/87	4	WASHINGTON, DC	SPAWAR
5/4-8/87	5	WASHINGTON, DC	SPAWAR
6/1-4/87	4	WASHINGTON, DC	SPAWAR
6/7-10/87	4	HONOLULU, HI	CINCPACFLT
6/22-28/87	7	WASHINGTON, DC	SPAWAR
7/13-16/87	4	WASHINGTON, DC	SPAWAR
7/18-25/87	8	HONOLULU, HI	CINCPACFLT
7/27-8/4/87	9	LONDON, UK	CINCUSNAVEUR
8/10-13/87	4	WASHINGTON, DC	SPAWAR
8/25-28/87	4	WASHINGTON, DC	SPAWAR
8/31-9/3/87	4	WASHINGTON, DC	SPAWAR
9/8-10/87	3	WASHINGTON, DC	SPAWAR
9/22-25/87	4	WASHINGTON, DC	SPAWAR
10/19-23/87	5	WASHINGTON, DC	SPAWAR
10/26-30/87	5	WASHINGTON, DC	SPAWAR
11/1-9/87	10	HONOLULU, HI	HICKAM, AFB

ATTACHMENT A (page 3 of 4)

TOTAL NUMBER OF DAYS TRAVELED (1985-1987): 235

TOTAL NUMBER OF TRIPS: 56

TOTAL NUMBER OF TRIPS TO:

\* WASHINGTON, DC/BALTIMORE, MD:

\*\* HONOLULU, HI:

\*\*\*LONDON, UK:

LOS ANGELES, CA:

SAN FRANCISCO, CA:

OS A

36

11

3

4

2

DU

ASH

\* SPAWAR

= SPACE AND NAVAL WARFARE SYSTEMS COMMAND  
WASHINGTON, DC

DU

DU

\*\*CINCPACFLT

= COMMANDER IN CHIEF  
U. S. PACIFIC FLEET

ASH

ASH

ASH

\*\*\*CINCUSNAVEUR

= COMMANDER IN CHIEF  
U. S. NAVAL FORCES, EUROPE

ASH

ASH

ASH

ASH

All above information was extracted directly from official travel claim files and approved by NOSC. All claims are on file in Code 412.

ATTACHMENT A (page 4 of 4)

Code 412 has responsibility for engineering support of the following NCCS ashore projects.

PROJECT NAME	PROJECT MANAGER	GRADE/TITLE	MAJOR PROGRAM		TOTAL NOSC FUNDING		CONTRACTORS UTILIZED
			YES	NO	FY86	FY87	
World Wide Military Command Control Systems (WIS)	Ron Crepeau Dan Stockhaus	DP-III/Engineer DP-III/Engineer	X	(See Note 1)	100K	400K	CDC (FY86 only) Tracor, SEI, TCS
Shore Anti- Submarine Command & Control (SACC)	Gene Abat	DP-III/Technical Specialist		X	200K	30K	Booz-Allen (FY86 only)
Submarine Operational Command Center (SOCC)	Gene Abat	DP-III/Technical Specialist		X	250K	30K	Booz-Allen (FY86 only)
Joint Interoperability of Tactical Command Systems Translator Unit (JTU)	Jan Chandler	DP-IV/Technical Specialist		X	2M	7M	CSC, CDC SEI, Tracor
Navy Command & Control System Front End Processor (NFEP)	Barry Randall	DP-III/Scientist		X	300K	400K	SEI, CSC Booz-Allen
Readiness Support Group (RSG)	Ron Crepeau	DP-III/Engineer		X	200K	70K	Booz-Allen CSC, Adtech
Anti-Submarine Warfare Operational Center (ASWOC) Upgrade	Gene Abat	DP-III/Technical Specialist	X	(See Note 2)	250K	350K	SEI, Sauer Consultants
Tactical Command System (TCS)	Ron Crepeau	DP-III/Engineer	X		0	350K	SEI, CSC Orincon, Adtech Booz-Allen

Note 1 - WIS. The WIS is a joint Air Force, Army, Navy Program directed and managed by the U. S. Air Force System Command (Hanscom AFB). Each service component programs and supplies funds as specified by JCS and coordinated through the Secretary of the Navy for the navy related funding. All procurements and contracts are awarded by the Air Force Program office based in Washington, DC (See attached Program Summary extracted from the C3I Hardbook, Attachment F).

The NOSC, Code 412 role is to provide engineering support to the Space and Naval Warfare Systems Command (PMW-163) the navy project office. This role is limited to executing communications systems engineering support regarding utilization and implementation of the WIS products within navy facilities.

Note 2 - ASWOC. The ASWOC project has been identified as a major program by SPAWARSSYSCOM based on the entire life of the program (FY86- FY96). However, the funding in FY 86-87 was significantly limited and did not exceed 3 million dollars for all efforts within the program. There were no prime contractors involved until FY88 (October 1, 1987). At that time SPAWARSSYSCOM awarded a competitive contract to TRW Inc. for the entire development and implementation of the ASWOC upgrade project. (i. e. a complete turn key system).

NOSC has no role whatsoever in the procurement function or contracting for the ASWOC project. Our (NOSC) role is limited to engineering support to SPAWARSSYSCOM (PMW-161). The focus of our tasking addresses the development of system interface requirements, general engineering consultation, participation in systems reviews and the review of products produced by TRW.

My procurement function for the major programs (ASWOC and WIS) is limited to signing the authority to utilize the contractors (i.e. a stub requisition and review of each delivery order) no quality control is performed since the contractor effort is limited to preparation of planning documents and the review and comment on documents provided by the Navy sponsor.

Days spent Performing a Procurement Function on Major Programs

WIS = 0 Days  
ASWOC = 0 Days

There were no prime contractors involved until FY 88 (October 1, 1987). At that time SPAWARSYSCOM awarded a competitive contract to T&W Inc. for

ATTACHMENT C (page 3 of 3)

During FY 86-87, Code 412 initiated the following significant contract related functions.

- o Initiated a competitive procurement package that resulted in a contract N66001-86-D-0202 awarded to Computer Sciences Corporation during June 1986. The contract package was prepared by Mr. F. Miller a former Code 412 Scientist. The Source Evaluation Board (SEB) was comprised of Robert Sauer, Barry Randall, Code 412, J. Goertz and J. Barksdale, Code 411.
- o Initiated a competitive procurement package that resulted in a contract N66001-87-D-0083 awarded to Systems Exploration Inc. during August 1987. The contract package was prepared by Mr. F. Miller a former Code 412 Scientist. The SEB was comprised of Mr. Ron Crepeau, Barry Randall, Code 412, J. Goertz, Code 411 and Terry Norris, Code 421.
- o Initiated a procurement package N66001-87-D-0081 for award to an 8-A firm (Integrated System Analyst Corporation). Contract package transferred to Code 411 for action. The contract package was prepared by Ms. Paula Zajac a former Code 412 Technician.
- o Initiated several small purchase requests for miscellaneous hardware, personal computers, material etc. Each action was initiated by individual project managers.
- o Initiated several delivery order tasks to CSC, SEI, CDC, Booz-Allen, Adtech, Orincon, Tracor, and TCS. Each task was initiated and managed by each individual project manager.
- o Purchased several CP-1789(V)/UYK hardware suites through a series of contracts awarded by Code 21. Procurement packages were prepared and coordinated by the JTU project personnel headed by Mr. Jan T. Chandler. Each of these contracts or purchases were significantly under \$10,000,000.00.

Each of the efforts indicated above were delegated to the individual project managers or other Code 412 personnel assigned to the individual projects. I reviewed and authorized each of the actions either directly or by a designated Acting Head of Code 412 during my frequent TDY's. However, I did not perform a procurement function during the efforts stated above.

ATTACHMENT D



## RADIUS ORANGE CONTRACT EFFORTS (FY86-87)

Initiated a competitive procurement package for Engineering, Research and Analysis for Command and Control projects. The competitive package was prepared by Mr. Robert Sauer a former Code 412 employee recently retired and Mr. F. Miller a former Code 412 employee currently assigned to Code 414. The competitive package was submitted during March 1985 and has not been awarded as of this date. The Source Evaluation Board (SEB) was comprised of Ron Crepeau, Code 412, Barry Randall, Code 412, Jim Goertz, Code 411, Terry Norris, Code 421. The SEB convened during April 1987.

I performed duties as COTR for the following Radius Orange contracts:

A. N68786-84-D-3296, a Control Data Corporation contract awarded in 1984. The contract term expired on 30 September 1987. I authorized nine delivery order tasks from November 1985 through 1 November 1987. All tasks were managed by project managers in Code 412 or 434 who also prepared all necessary documentation to initiate the tasks. My role consisted of reviewing and signing as COTR. All deliverables were made directly to each individual project manager and Code 17.

Total contract value (ceiling for FY86-87 equaled \$1,000K).  
Total tasking equaled \$959K.

### Total number of days spent in a procurement function:

FY86	6 days
FY87	3 days

B. N68786-83-D-3273, a contract awarded to Systems Exploration, Inc. by Code 413. During January 1986 a ceiling of \$900K was allocated to Code 412 and I assumed duties as COTR for odd number tasks only and limited to the \$900K ceiling. I approved ten delivery order tasks for Code 412, and Code 411 project managers for a total amount of \$859K. The contract expired on 30 September 1987. All deliverables were made directly to the individual project managers and Code 17.

### Total number of days spent in a procurement function:

FY86	4 days
FY87	6 days

C. N68786-85-D-3337, a contract awarded to Booz-Allen & Hamilton, Inc. during August 1985. This contract expired on 30 September 1987, however, there is a remaining ceiling of approximately \$200K that may be utilized until the ceiling is depleted. Mr. Ron Crepeau was assigned COTR duties on 1 November 1987.

As COTR I approved 45 delivery orders during FY86-FY87 for a total dollar value of \$3,031K. The contract supported the following Codes or activities:

412, 423, 432, 421, 414, 653, SPAWAR, Code 30X, 411, and SPAWAR 3122.

My duties as COTR involved reviewing the tasks and signing as COTR. Each individual project manager that utilized the contract prepared all materials, estimates, CDRL's, DID's, etc. My role was that of reviewing and signing the Statement of Work. All deliverables were made directly to the technical Code with a copy to Code 17 who is responsible for accountability of the contract and deliverables. All efforts needed for filling the tasks Statement of Work (SOW), assigning task numbers, forwarding the package for processing, logging the activity etc. was performed by the branch secretary or Ms. Paula Zajac a former Code 412 employee.

Total number of days spent in a procurement function:

FY86	20 days
FY87	35 days

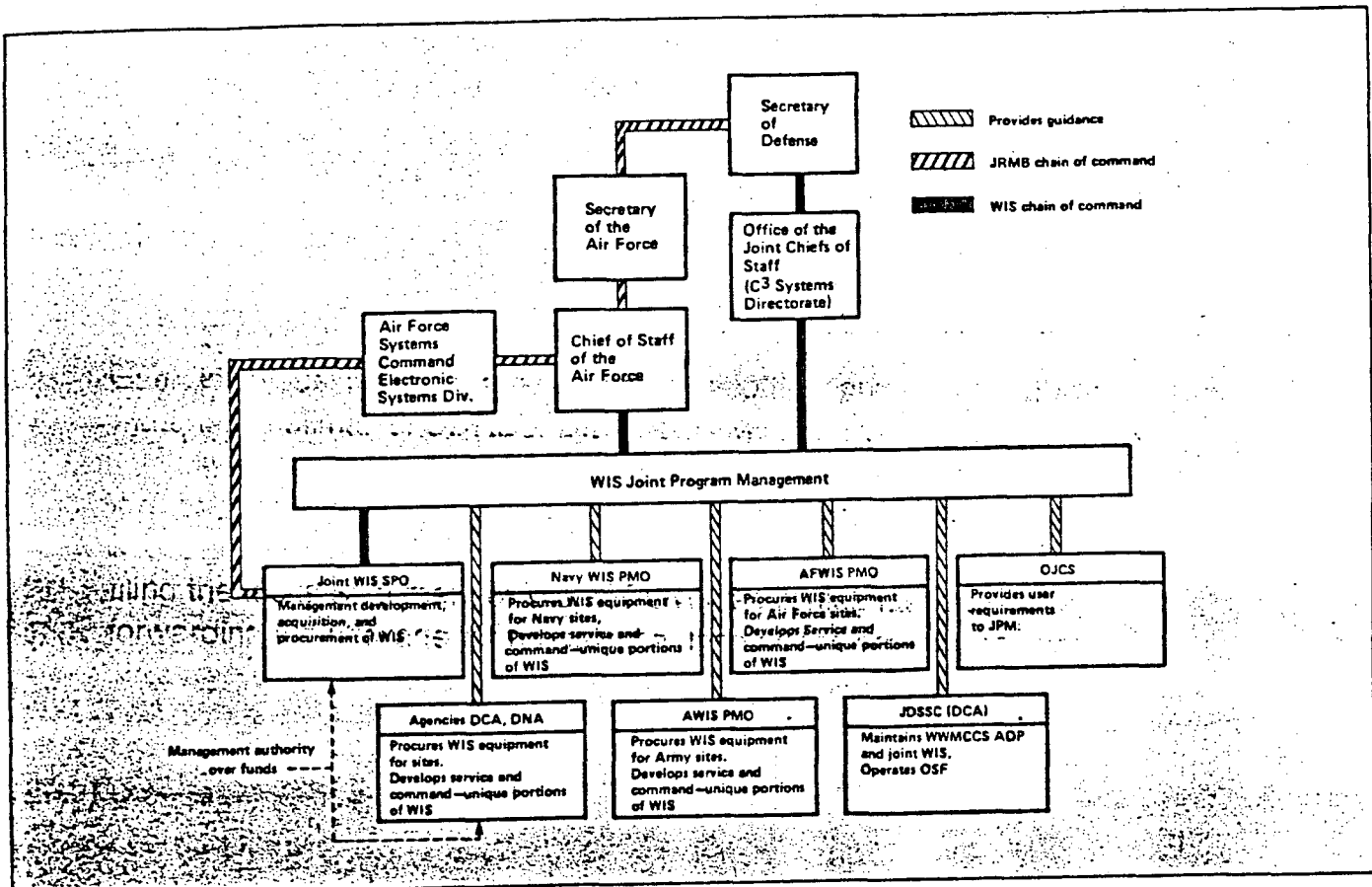
Days spent in procurement function related to a major program:

FY86	= 0
FY87	= 0

Summary of days spent in a procurement function from 1 November 1985 - 1 November 1987:

FY86	30 days
FY87	<u>44 days</u>
Total days =	74 days

# Worldwide Military Command and Control Information System



The worldwide military command and control system (WWMCCS) took shape some 20 years ago as an ambitious effort to coordinate the development of national-level command and control systems. Its basic goal was to unify what had been a piecemeal process—the individual development of C<sup>3</sup> systems by the military services in support of the unified and specified commanders-in-chief and the national command authorities.

From its inception, however, WWMCCS (pronounced "wimmicks") development has been constrained by technological, fiscal and organizational problems. For example, achieving interfaces and integration between national-level C<sup>3</sup> systems has proved difficult, particularly as these systems have proliferated. A number of improvements envisioned under the WWMCCS program have not been

feasible due to their cost, particularly the cost of recommended upgrades to strategic systems.

In addition, the term WWMCCS has been an object of confusion, even for members of the C<sup>3</sup> community. WWMCCS was intended to be—and continues to be—a system of systems focusing on C<sup>3</sup> capabilities within the contexts of day-to-day operations, crisis management, theater war and strategic nuclear war. But many still consider the system only in terms of its most visible aspect—its automated data processing (ADP) component.

This confusion is manifest by equating WWMCCS with the WWMCCS information system (WIS), and exists in part because the role of the WWMCCS system engineer, designed to address many of the WWMCCS integration problems, no longer enjoys the prominence it had in the 1970s.

Undeniably, though, WWMCCS ADP and its successor, WIS, have always been an important and highly visible element of the program, and greatly affect WWMCCS users.

## WWMCCS Evolution

WWMCCS today confronts realities quite different from those envisioned by its original charter, promulgated in 1971 by Defense Department directive 5100.30.

That directive defined the functional, organizational and operational relationships among all elements of WWMCCS. It also provided policy

*This profile was prepared by staff at Booz-Allen & Hamilton Inc., Bethesda, Md. Principal contributors were William A. McQuiggan, Jane M. Fitzhenry and Michael R. Kelly. Booz-Allen & Hamilton provides engineering, technical and consulting services to the strategic, theater and defense-wide C<sup>3</sup> community.*

guidance and established responsibilities for WWMCCS management, development, acquisition and operation.

The directive designated the chairman of the Joint Chiefs of Staff as being responsible for the operation of the national military command system (NMCS)—the linchpin of this system of systems. By reaffirming the NMCS as the priority component of the WWMCCS, the directive mandated that military commanders, including the unified and specified commanders-in-chief (CinCs), had to ensure that the design of C<sup>3</sup> systems would first meet national requirements and then those of their own missions, not vice versa.

Additionally, the directive established a WWMCCS Council, chaired by a deputy secretary of defense, that would provide policy guidance and evaluate performance. It also guided the efforts of the WWMCCS system engineer, established within the Defense Communications Agency (DCA) in 1975.

The council, active through the mid-1970s, also focused on system deficiencies, improvements and development of an overall WWMCCS architecture. However, cost considerations forced the council to focus on a series of initiatives aimed mostly at improving the nation's ability to cope with crisis management, as well as on upgrading national command centers. The latter initiatives perforce placed emphasis on WWMCCS ADP.

Overall, as defined by the 1971 directive, WWMCCS was to be an over-arching worldwide C<sup>3</sup> system, including sensing, surveillance and communication technologies, and an information collection, processing and display system. Together, this system was intended to support four basic functional categories of higher echelon military command and control. These categories, or functional families, were defined by the WWMCCS ADP concept of operations and general requirements for post-1985 as:

- Nuclear planning and execution (NPE)
- Threat warning and attack assessment (TW/AA)
- Resource and unit monitoring (RUM)
- Conventional planning and execution (CPE).

Through a network of ADP systems, communication systems facilities and personnel located at some 35 sites around the world, WWMCCS was intended to provide national command authorities with the capability to detect and transmit warning and intelligence data, apply military department resources, assign military missions and provide direction to headquarters commands.

Although all four categories still comprise WWMCCS, improvements sought to the automated data component of WIS do not extend to the NPE and TW/AA categories; their exemption from WIS probably causes some to believe that WWMCCS is now WIS. WIS itself represents an effort to modernize and improve WWMCCS ADP equipment, facilities and other system elements that were installed under WWMCCS and encompass the RUM and CPE functional families. WIS also represents the bulk of WWMCCS funding; requested WIS expenditures totaled some \$245 million for fiscal 1987, according to DOD program element descriptive summaries for FY-87.

The accompanying table puts this situation in context. It depicts representative C<sup>3</sup> systems encompassing the four functional families and their responsible organizations. It also portrays the diversity of the current strategic C<sup>3</sup> picture, emphasizing the continuing need for a single systems engineering approach as WWMCCS evolves.

#### NPE and TW/AA

NPE is evolving along two significant programmatic lines. One is the ADP portion, embodied in the nuclear planning and execution system being developed by DCA. This software system runs on a Data General MV10000 and is a replacement for the older general war system that ran on the Honeywell computers used for WWMCCS ADP. The Data General computer system currently is being fielded at a number of sites where strategic nuclear data bases are used.

This second path is the engineering of what was called the minimum essential emergency communications network (MEECN). This network really was a collection of communications

networks using various frequency bands, from VLF through EHF satellites. Although the MEECN is no longer a specific entity in the defense planning system, the individual communications systems and networks that comprised the MEECN are still being used and are under continuing development by the military services.

TW/AA monitors three types of strategic threats upon the United States: missile attacks, attacks by atmospheric threats such as bombers and cruise missiles, and threats against U.S. space assets such as communications and sensor satellites. The newly formed U.S. Space Command is responsible for threat warning and attack assessment in all three categories.

The most highly developed and sophisticated TW/AA system concerns potential ballistic missile attacks on the U.S. This system has existed in one form or another since the 1950s, and has always enjoyed a high level of support in defense budgets. The missile warning system today consists of numerous missile sensors, communications networks between the sensors, space command headquarters and other command centers, and a number of computer systems, of which the command center processing and display system is most prominent.

Next in complexity and sophistication is the air defense system. It currently consists of numerous radars positioned across the Arctic Circle from Alaska through Canada and from Greenland to England. Very sophisticated C<sup>3</sup> systems also have been designed for air defense, the best known being the airborne warning and control system (AWACS).

The third TW/AA system addresses space defense. Today, this system consists of mainly sensors and warning communications that alert military forces of a possible attack on space assets. The next 10 to 20 years could see a significant increase in the magnitude and sophistication of this defense system.

#### The Evolution of WIS

Efforts to automate command and control functions date from World War II. It was not until 1961, however, that the Defense Department validated requirements for a standard ADP sys-

tem to support command and control. The WWMCCS operational concept was defined by a classified directive in the following year (superseded by the 1971 directive).

Over the next three years, demands for ADP capabilities increased as more and more command and control sites became operational. By 1966, WWMCCS ADP was a loosely-knit

federation of 158 different hardware suites using 30 different software systems. These systems had been developed separately from one another, without taking into account the infor-

WWMCCS Functions	Current & Projected Systems	Responsible Agency
Nuclear Planning & Execution	616A ADARS AFsatcom CVLF (Compact VLF) E-4B Abncp communications E-6 (follow-on to the EC-130 for Tacamo) Enhanced Verdin System G/AIT (Ground/airborne integrated terminal) - NDS GMCC (Ground mobile command center) GWEN (Ground wave emergency network, part of MEECN) Milstar MRT (Miniaturized receiving terminal) NPES (Nuclear planning & execution system) Sacdin Stresscom HF/VHF system T/MGS (Transportable/mobile ground system) SCT (Single channel transponder - with AFsatcom) Wwabncp interim processor	AF  AF N AF N N AF  AF-J AF-J AF WW AF MEECN AF AF N, AF
Threat Warning/Attack Assessment	Adaptive HF AFsatcom BMEWS (Ballistic missile early warning system) CSS-R DSP GPS/IND (Ground position satellite/nudet detection sys) GWEN JRSC (Jam-resistant secure Comms) Meteor burst Milstar NCMC space defense system (formerly Spadoc) NMCS space defense information system (Spadis) PAVE PAWS SCIS (Survivable communications integration system) Sacdin SDI	AF AF AF AF AF  A, AF  AF-J AF AF AF AF AF SDIO
Resource & Unit Monitoring	DDN DSN JCMC (Joint crisis management capability) SCP (Secure conferencing project) SVIP (Secure voice improvement program) WIS	DCA-J DCA-J WW J A, AF DCA-J
Conventional Planning & Execution	DDN  DSN JCMC Milstar SCP SVIP WIS	DCA-J  DCA-J WW AF-J J A, AF DCA-J

A-Army, AF-Air Force, J-Joint, N-Navy, WW-WWMCCS

mation requirements of other organizations with which they would have to exchange information.

Discussions about improvement and standardization began at that time, although it was not until 1969 that the Office of the Secretary of Defense decided to introduce a standard WWMCCS computer. The hardware contract was awarded to Honeywell in 1971; by 1973, 35 Honeywell H6000 computers had been fielded.

The hardware replacement was part of a program intended to make the system as responsive, reliable and survivable as possible given available resources. The program also was intended to centralize WWMCCS ADP management activities and to simplify information exchange through standardized hardware and data base management systems.

Unfortunately, the reach often exceeds the grasp, and these improvements were not fully realized. The principal reason was that WWMCCS information requirements were not fully defined until after the computers had been installed. Shortcomings were pointed out in a 1979 General Accounting Office (GAO) report. For example, the report stated that the "standard" WWMCCS applications programs did not provide decision makers with "the right information, at the right time, in usable formats or in sufficient detail to make decisions."

The GAO report also concluded that "the program's existing management structure was so complex and fragmented that no one central program or individual had a complete overview of [WWMCCS] or its management." It recommended that Congress reduce or eliminate funding of the program until DOD took steps to accomplish the improvements it had tried to effect a decade earlier.

#### Establishing WIS

Responding to the GAO, the Defense Department established a joint program manager in November 1981 for the WWMCCS ADP modernization effort, henceforth called the WWMCCS information system. The WIS was to cover two of the four WWMCCS functional families: resources and unit monitoring and conventional planning and execution. WIS will interface, as

required, with the nuclear planning and execution and threat warning/attack assessment systems, which are being modernized under separate programs.

The WIS will receive and process data distributed through the joint reporting structure, which provides military planners with information concerning military force combat readiness, location, employment and the like. CPE functions are currently supported by the joint operations planning system (JOPS) and the joint deployment system (JDS). These systems primarily support planning for moving forces to areas of conflict, but do not support such mission areas as mobilization, sustainment and employment.

WIS program management is depicted in the accompanying organization chart. The chief of staff of the Air Force is the executive agent for WIS. The services support the WIS joint program management office (JPMO) on a pro-rata basis with RDT&E funds. The WIS system program office (SPO), which is part of the Air Force's Electronic Systems Division, manages the development, acquisition and procurement of WIS hardware and software.

WIS user requirements are provided by the command, control and communications system directorate of the Office of the Joint Chiefs of Staff. Initially, these requirements, or required operational capability documents (ROCs), encompassed automated message handling, the national military command system information system and the joint operations planning and execution system (JOPES).

The JOPES ROC presented a particular challenge to the WIS program. It stated the requirements for an automated system that would support both planning and execution for all areas of joint military operations—deployment, mobilization, sustainability and employment. Nearly every state of the art automated capability was addressed by the JOPES ROC, as well as such advanced and not yet available capabilities as multilevel security. The ROC also encompassed commands—notably the military personnel commands and logistics organizations—that were not part of the WWMCCS system.

Because of funding constraints, the requirements contained in the JOPES ROC were scaled down. Nonetheless,

JOPES is the basis for virtually all of the applications software that will be developed to operate on WIS hardware.

Coincident with the publication of the JOPES ROC in mid-1983, the Defense Department mandated Ada as the higher order computer language that would be used for all mission-critical defense applications entering advanced development after Jan. 1, 1984, including WIS.

Besides falling under the Ada umbrella, WIS also was subject to the mandates of the Brooks Bill, which required that the General Accounting Office approve federal computer acquisitions, except those considered already embedded within a fundamental system. DOD considered the NPE and TW/AA systems embedded, but not WIS.

#### Modernization Approach

The WIS modernization plan emphasizes an evolutionary approach to minimize disruption at operational sites. Among modernization goals are improving WWMCCS crisis management capabilities, as well as implementing the same procedures for both crisis management and routine crisis planning, thus improving system efficiency. In addition, the modernization effort aims at providing the system with more automated support and execution capabilities, for example, through automated message handling.

The modernization challenge has been compared to converting a black and white television to a color television without turning off the set. For this reason, a local area network (LAN) architecture was selected as an integral part of the WIS architecture.

The mandated use of Ada also was another program challenge. For example, there were few certified compilers available, as well as few qualified Ada programmers. However, the promised machine-independence of Ada code resulted in a "software first" acquisition approach. The approach enabled the long software development process to occur prior to and independent of hardware acquisition, thus preventing program dependence on a single hardware vendor. Maximum use of commercial off-the-shelf hardware and software also was prescribed for this reason.

Further, the hardware procurement could be delayed until the software was developed, allowing fielding of the most up-to-date hardware available. The traditional approach of hardware procurement followed by software development, especially in a program of WIS's size and complexity, could have resulted in hardware that was obsolete by the time it was deployed.

Given the magnitude of the WIS program, and to facilitate the Defense Department system acquisition approval process, the modernization effort was divided into "blocks" of capabilities. The blocks (identified as A, B and C) are transition tools to manage the improvement process. The Block A milestone II approval, permitting full-scale development, occurred in July 1985. Block B milestone II approval is planned for July 1988.

Block A capabilities at each site include installation of a local area network, associated hardware and software, an automated message handling processor with peripherals and operating software, and WIS workstations whose operating hardware include both Honeywell VIP 7705s (in the emulation mode) and stand-alone personal computers.

During Block A, the operating system of the existing Honeywell 6000s (now known as DPS8s) will be upgraded to the operating system known as GCOS8. This approach will allow those sites that are currently nodes of the WWMCCS intercomputer network to cut over to the DDN using the Defense Department's standard telnet and FTP protocols. Actual cutover will occur in 1988.

Sites that have not yet had a local area network installed (a prerequisite for cutover) will receive a transition component to provide LAN capabilities. The component includes a compact LAN containing a scaled-down cable plant, a LAN control center/security monitor, a gateway to the DDN and elements of the WIS centralized security authentication mechanism.

Block A is hardware-oriented. It adds no new applications software capabilities, although an Ada software development and maintenance environment (SDME) will be available for use with the automated message handling pro-

cessor (an IBM 4381). Validated compilers also are available for the DPS8, as well as the WIS workstations.

In Block B the mainframe replacement, consisting of new hardware and some new software, will occur. Lacking specific definition, this replacement is now called the joint mission processing environment (JMPE). In addition, Block B will make improvements to the LAN such as the capability to distinguish secret from top-secret data, the automated message handling processor and the workstations.

Block B also will introduce the first increment of JOPES software. This software will support deployment planning and execution, and will integrate the capabilities of the joint operations planning system, the joint deployment system and parts of the status of forces reporting system (Sorts), as well as some WWMCCS standard applications. An early version of this incremental software will run on existing WWMCCS processors; later, this software functionality will be transferred to the mainframe replacement.

Block C is not yet completely defined. However, it will likely focus on enhanced joint planning and execution functions, with automated assessment and replanning capabilities, and improved interfaces to non-DOD agencies and NATO. Progress toward a multi-

level security environment will also continue.

#### Outlook

The magnitude of the WIS program and the large number of organizations involved in its implementation continue to pose a significant management challenge. Moreover, since WIS is a joint program, it is subject to trade-offs the services must make in determining budget priorities. Hence, it may be vulnerable to funding reductions or funding delays impacting R&D efforts, as well as implementation schedules.

WIS also faces technological challenges. Multi-level security is a WIS requirement. Other WIS elements, such as message processing, LAN architecture and remote terminals also pose security issues. Data standardization, in terms of format and protocol, is another technical obstacle. Studies have compared certain joint reporting structure data elements with Publication 25 message text formatting data elements.

Such studies highlight the need for data standardization. For example, virtually no direct matches have been found, although there are many similarities. The use of Ada also impacts data standardization, because many existing data elements will have to be modified to conform with Ada data types.

## WWMCCS/WIS System Description

**System:** Worldwide military command and control system/WWMCCS information system (WIS)

**Mission:** Command and control of globally deployed U.S. military forces during peacetime, crisis and all phases of a general war

**Users:** Department of Defense, national command authorities, Joint Chiefs of Staff

**Executive Agencies:** (see adjacent chart)

**Contractors:** GTE (WIS prime); IBM Federal Systems Division; Ford Aerospace and Communications Corp.; The Mitre Corp.

**Status:** WWMCCS operational; WIS in full-scale development

## C<sup>3</sup>I SYSTEM PROFILES

WWMCCS/WIS

Perhaps a more fundamental challenge facing the entire national level C<sup>3</sup> community, as well as WIS, is the essential need for coordinated planning to provide the Cincs with needed war fighting capabilities. Given the diversity of existing and planned C<sup>3</sup> systems, WIS still is confronted with many of the problems—chief among them interfaces and integration of resources—that WWMCCS was intended to address from its inception.

Lack of communications interoperability adversely affects such C<sup>3</sup> requirements as survivability, redundancy of resources and alternative pathways. This challenge is manifest, for example, between AFsatcom and Fltsatcom, which cannot interface without undergoing a complicated, terminal-

based conversion process. Similarly, the Navy's Verdin VLF system cannot directly interface with the Air Force's 616A VLF system.

Centralized oversight of the C<sup>3</sup> planning and program process was initiated to address such problems, which also were addressed in the Packard Commission report. These problems, as well as the history of WIS, suggest the strong need for a strengthened C<sup>3</sup>I system engineering role that addresses all the broad challenges facing WWMCCS. For a variety of reasons, the system engineering role played by DCA earlier in the WWMCCS program has diminished. Yet if that role was vital and necessary to program success a decade ago—and the technological and organizational

problems encountered by WWMCCS ADP argue that it was—it is much more so today. However, this role must be reexamined within the overall DOD C<sup>3</sup>I systems engineering context, which is emerging as a result of the Packard Commission report.

Meanwhile, WIS is becoming a reality. Installation at operational test sites at the headquarters for the commander-in-chief, Pacific; Tactical Air Command, and Forces Command, will begin in 1988. "Early products" workstations have been fielded at many sites, and planning for Block B has begun. Still, the course of the program's development will depend upon whether planned capabilities will have to be modified in light of technological obstacles and the fiscal environment.

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ATTACHMENT A

Question 3.A

ATTACHMENT B

Question 3.B

ATTACHMENT C

Question 3.B and 3.E

ATTACHMENT D

Question 4.A and 4.B

ATTACHMENT E

Question 3.B and 3.C

ATTACHMENT F

Question 4.A and 5.B

BACKGROUND

My primary job as Head of Code 412 is that of a Technical Manager, responsible for analysis, design, implementation and engineering support for several different Navy Command and Control systems under the Navy R&D program. I manage and direct approximately fifteen (15) in-house engineers, technicians and administrative personnel. My role is that of Branch Head, a 5th level job, reporting to a Division Head, Department Head, Technical Director and Commanding Officer.

As Head of the Theater Systems Branch, a portion of my job is to plan, coordinate and insure that projects assigned to the branch are executed and that work is performed as specified by our SPAWARSYSCOM Sponsors. In order to achieve our project related responsibilities we utilize engineering services contracts (cost plus) delivery order type. There are two general types of contracts, those administered by NOSC and Radius Orange (A Code Word) contracts administered by Navy Supply Systems Command Washington, DC.

As Manager, I am responsible for the planning of needed engineering personnel and assets including contractors. This particular effort regarding contractors entails specifying the scope of the framework of the contract. The actual development of the contract specifications, Statement of Work, Contract Data Requirements Lists, etc is delegated and assigned to engineers and/or technicians within Code 412. In concert with the Division Head, we appoint a Source Evaluation Board (SEB) from across the department to evaluate responses to RFP's issued by the Contracts Department. I also review evaluation results to insure that a fair and thorough evaluation was performed and that the Source Evaluation plan was followed. However, I do not serve and have not served as evaluator or chairman of the SEB during the evaluation process.

As delivery orders are written against an awarded contract I sign or initial the funding requisition to initiate the effort and review the delivery order task. My signature approval authority is limited to \$25,000.00. I do not specify to the individual Project Managers which contract or contractors he or she is to utilize for each individual project. Quality Assurance of the projects or results is the responsibility of each Project Manager. Moreover, our products are usually engineering and analysis reports, rather than hardware or complete systems. When quality assurance is performed, Code 922 is utilized to perform this phase on all projects developed by Code 412. Further, I do not work closely with any contractors regarding procurement functions per se nor do I directly manage the technical aspects of a Code 412 project.

*potential  
impact  
(personally  
involved)  
decision making  
responsibilities*

*that the  
responsibilities*

In other words responsibility for each project is delegated to a senior person in Code 412 with full authority to execute all phases of the project including the tasking of, and interfacing with the support contractors. Please see attachment "C" regarding each project managed within Code 412 and other pertinent data relevant to each project.

Code 412 has current delivery order contracts with the following contractors:

- o Computer Sciences Corporation - N66001-86-D-0202  
Approximate contract ceiling FY 86-87 \$3,500,000.00  
Awarded in August 1986  
COTR - Mr. Jan T. Chandler
- o Systems Exploration Inc. - N66001-87-D-0083  
FY 86 = 0 FY 87 = 0  
Awarded in June 1987  
COTR - Mr. Jan T. Chandler

Code 412 Project Managers also utilize the services of contracts managed by other departments or Codes within NOSC. regarding contractors entails specifying the scope of the framework of the

<u>CORPORATION</u>	<u>RESPONSIBLE CODE</u>
o Control Data Corporation	NOSC, Code 80 Contract
o Systems Exploration, Inc.	NOSC, Code 411 Contract
o Computer Sciences Corporation	NOSC, Code 411 Contract
o TCS	NOSC, Code 80 Contract
o Tracor	NOSC, Code 80 Contract
o Orincon	NOSC, Code 80 Contract
o Advanced Technology	NOSC, Code 414 Contract

I do not personally manage projects nor direct the technical aspects of projects in Code 412. However, I am responsible for the performance of the efforts of the Code 412 branch personnel.

PROCUREMENT FUNCTIONS: Negotiation = None; Award = None; Administration or approval of a contract = None; The selection of a contract during the course of duties as Branch Head in conjunction with the Division Head we appoint a Source Evaluation Board to evaluate responses to soliciations, a part of this effort is to review the SEB results to insure all procedures are followed and that a fair evaluation has been performed and schedules are met.

However, selection of a contractor is not made by Code 412).  
Approval of a change in a contract = None; The performance of quality assurance. We insure that all products (engineering results) are of expected quality. However, this effort is delegated to each responsible Project Manager who in turn utilizes NOSC, Code 922 to actually perform the efforts of quality assurance. Operational and development testing - this effort when required is an integral part of the R&D process and is delegated to each technical project manager; Approval of payment or auditing under a contract = None;

ATTACHMENT B (page 3 of 3)